2011 PERIODIC REVIEW REPORT

Groundwater Monitoring and Sampling Annual Report

Roblin Steel Site
Site Number B00025
City of North Tonawanda

January 2012

2011 PERIODIC REVIEW REPORT

GROUNDWATER MONITORING AND SAMPLING ANNUAL REPORT

ROBLIN STEEL SITE
SITE NUMBER B00025

CITY OF NORTH TONAWANDA
NEW YORK

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SECTION 1 - SITE BACKGROUND

1.1 Site Location

The Roblin Steel site was an inactive steel processing manufacturing facility in the City of North Tonawanda, Niagara County, NY. The site is bounded by East Avenue on the north, Oliver Street on the east, and Eighth Avenue on the south, and the Conrail-Erie Lackawanna railroad tracks on the west. One building, located on a 4.9-acre parcel adjacent to the northwest part of the site, represents an active facility occupied by Armstrong Pumps since 1985. In 1997, through tax delinquency, the City of North Tonawanda obtained the former Roblin Steel facility. A site location map is presented on Figure 1.

1.2 Site History

Manufacturing operations were reported to have begun at the site in 1918, when the Buffalo Bolt Company owned the property. Roblin Seaway Industries, Inc. (a precursor to Roblin Industries, Inc.) purchased the manufacturing plant and property in 1961. From 1977 to 1987, Confer Plastics leased two long, narrow buildings on the west side of the site. In 1985, Roblin Industries sold a 4.9-acre portion of the site and the building on that portion of the site to Armstrong Pumps, Inc. In 1987, Roblin Industries declared bankruptcy, and all activities ceased at the site. In 1989, the property owned by Roblin Industries was divided. As a result of foreclosure for back taxes, the City of North Tonawanda assumed ownership of 11.5 acres of the former Roblin Steel site in 1992. At that time, Banac Enterprises owned the remaining 11.8 acres of the Roblin site. In 1995, this portion of the site was being used as an automobile salvage operation. The City of North Tonawanda currently owns the 11.8-acre parcel previously owned by Banac Enterprises, also acquired through foreclosure actions.

During the time that Roblin Industries owned the site from 1961 to 1987, operations taking place in the buildings included hot rolling of steel rods and bars, sulfuric acid pickling of steel coils, lime and oil coating of steel coils, annealing of steel coils, wire drawing and melting, and casting of nickel. Wastes were regularly staged near the center of the southern portion of the site prior to being sent off site for disposal. Wastes generated at the site included sludge from the phosphate tank, iron oxide scale, lime, spent pickle liquor, and waste oil.

ROBLIN STEEL SITE
CITY OF NORTH TONAWANDA, NEW YORK
USGS QUAD: TONAWANDA WEST

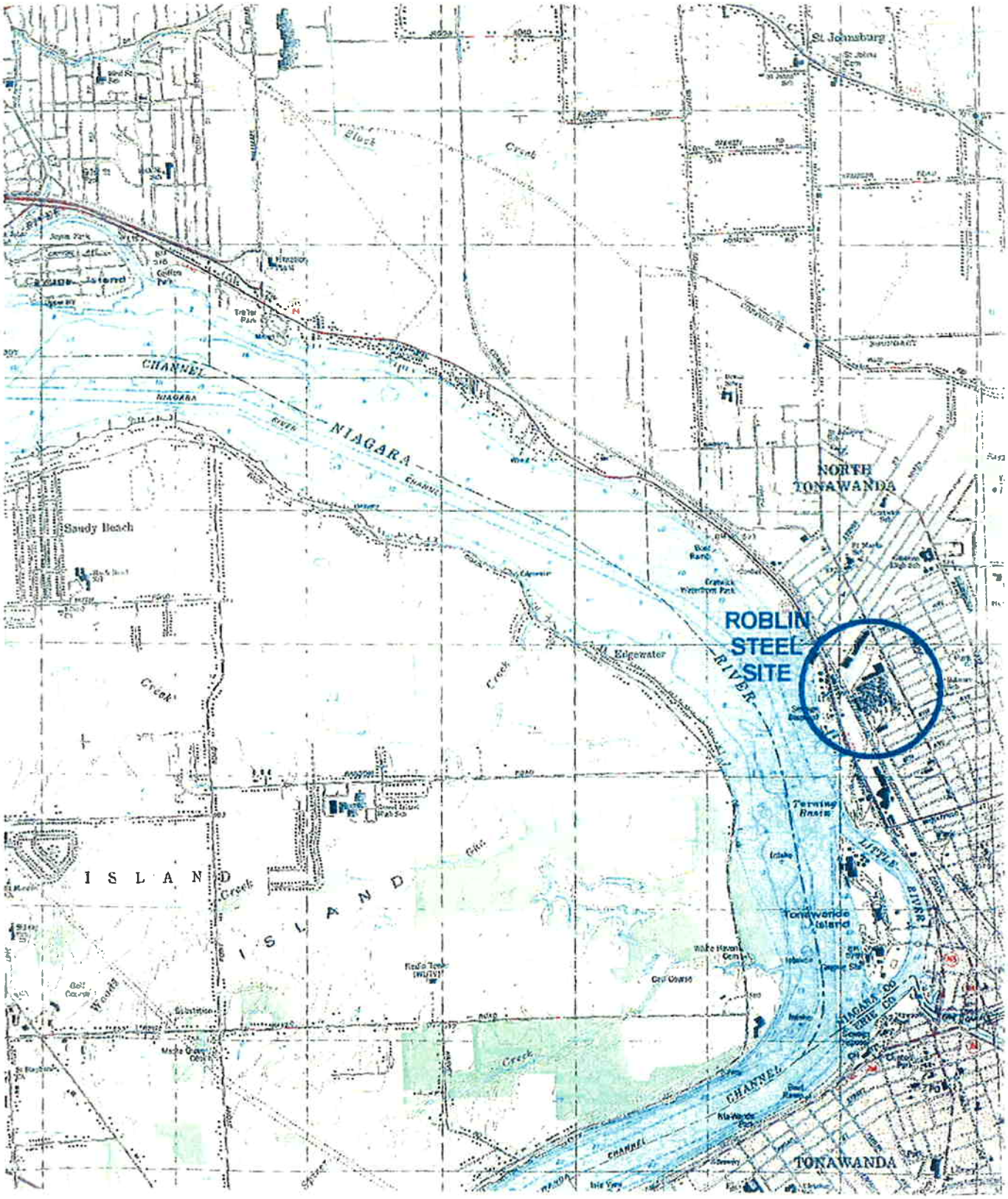


Figure 1.

Most of the site consisted of empty buildings in various states of disrepair and overgrown undeveloped property. Confer Plastics previously occupied two buildings on the western portion of the site, both of which had been burned prior to remediation efforts. The location of one of these buildings was identified only by the presence of brick piles, while the other building still had sections of walls standing.

The western portion of the rolling mill building that remained from the demolition project completed in 2000, contained flooring which consisted of stained, contaminated wood blocks. The block flooring had lifted off from the sub floor due to moisture. Trenches in the building appeared to be full of sediment and sludge. A soil floor comprised the eastern side of the building. Concrete-lined trenches were present in this portion of the building. Concrete-lined pickling tanks were present in the northwest portion of the mill building.

Waste piles, some from the previous operations at the site (identified as slag and scale during previous site investigations), and some containing building rubble/materials, were present on the western and southern sides of the site. Drums of various materials were present outside, near the southeast corner of the former mill building, and inside the large brick building, located in the center of the site. Transformer cases were adjacent to the southeast side of the former mill building. Most of the area not covered by buildings or heavy vegetative cover contained areas of black, stained soil. A concrete reservoir from a former quenching pond was located in the approximate center of the site.

1.3 Regulatory History

In 1998, Stearns & Wheler, LLC was contracted by the City of North Tonawanda, New York to provide engineering services and perform a Site Investigation/Remedial Alternatives Report (SI/RAR). The SI report and the preliminary RAR report were completed in 1999. In 2002, Stearns & Wheler developed a phased project approach for the site remediation based on the 1999 SI/RAR findings and earlier investigation completed in 1995 by the New York State Department of Environmental Conservation (NYSDEC). Based on the conclusions of the Site Investigation Report, Areas of Concern (AOC) were identified. The Remedial Alternatives Report addressed, defined and selected the most feasible remedial alternatives for the areas of concern.

The project was divided into two separate contracts due to the condition of the building ruins. Expedited demolition activities under emergency circumstances was required at the site

responding to building conditions in close proximity to the adjacent, occupied business, Armstrong Pumps. The unsafe building conditions were the result of a fire in September 2002, which caused concern to the insurance carrier for Armstrong Pumps. Therefore, demolition of the site buildings and removal of asbestos containing materials was completed under the Phase I Contract. Remediation of site contamination and concrete foundation demolition was completed as Phase II.

1.4 Remediation Activities

Several waste removal and disposal operations have taken place since manufacturing operations ceased at the site. In 1990, a drum removal and disposal operations were conducted.

In 1992, a transformer was cleaned out and PCB-impacted soil from the area surrounding the transformer pad was excavated and disposed off site. The former wire mill building was demolished in 2000 so that the steel in the structure could be salvaged. An asbestos survey was completed prior to demolition.

In 2001, one (1) 2,000-gallon and two (2) 5,000-gallon steel storage tanks (USTs) were removed from the site. In addition, one (1) 10,000-gallon fiberglass storage tank was excavated and demolished on-site. Approximately, 30 CY of contaminated soil related to the UST removal remained on site for later removal and disposal off-site during the Site remediation activities scheduled for 2003 to 2004. Underground storage tank removal and disposal activities can be referenced in the Tank Closure Report dated May 2001.

The City received a "brownfields" redevelopment grant through the 1996 New York State Clean Water/Clean Air Bond Act to facilitate the rehabilitation of the site. Site buildings were condemned by the City of North Tonawanda due to the deteriorated condition of building structure which posed a safety concern to the public. Immediate demolition of site buildings was required due to structural damage and the close proximity of the existing adjacent business known as Armstrong Pumps. This work was performed under Phase I construction and completed in 2003. Phase I construction also involved remediation of Areas of Concern.

Phase II was undertaken in 2004. Final completion occurred during June 2005. Phase II work included the remediation of the site as recommended in the Remedial Alternatives Report

(RAR), Proposed Remedial Action Plan (PRAP) and Record of Decision (ROD). Phase II construction involved remediation of the impacted soil and remediation of the former quench pond. Once the site was remediated, the site can be returned to beneficial use without posing an unacceptable risk to new occupants, neighbors, or the environment in the vicinity of the site.

SECTION 2 - GROUNDWATER MONITORING ACTIVITIES

The Monitoring Plan will include the necessary actions required to ready and maintain the site for monitoring once remedial construction is complete. The Monitoring Plan will be implemented once both remediation phases identified as Phases I and II are complete.

2.1 Site Hydrogeology

Results of groundwater sampling indicate that constituents in the soil/fill material have slightly impacted groundwater quality with volatile organic compounds (VOCs). Groundwater in the southeast corner of the site has been impacted with low concentrations of chlorinated VOCs. Groundwater in this portion of the site presumably flows toward the combined sewer line that runs down the west side of Oliver Street.

2.2 Monitoring Requirements

Annual monitoring will be performed on groundwater samples for a minimum period of 30 years or at reduced frequency and period as approved by NYSDEC. Groundwater monitoring will initially be conducted after the remediation has been completed and thereafter on an annual basis. Methods used will be consistent with NYSDEC requirements. The extent and frequency of the sampling and analysis will be evaluated with the NYSDEC after the first year and then every five years to determine if sampling points or analytes can be dropped from the monitoring program. The NYSDEC will be notified in advance of each sampling event and summary reports of the data will be submitted to NYSDEC for review. Annual summary reports will be submitted to the NYSDEC.

2.3 Groundwater Monitoring

The groundwater monitoring system will be maintained and sampled during the post-remediation period. The extent and frequency of the sampling and analysis will be evaluated by NYSDEC periodically on an annual basis to determine if the sampling points or analytes should be changed. The NYSDEC will detail changes as appropriate after reviewing the annual summary reports. Under the approved Site Management Plan dated March 2007, the following groundwater monitoring locations were to be sampled and designated as GW-3S, GW-3, GW-11S, GW-12S, and GW-18S and tested for Volatile Organic Compounds (VOCs) under EPA Method 8260 TCL.

The groundwater monitoring program was modified as proposed in the City of North Tonawanda's letter dated January 7, 2010 and presented in Appendix A. The City proposed to the NYSDEC to sample groundwater from one location at MW-3S. Analytical testing will include VOCs under EPA Method 8260 TCL. The NYSDEC has approved this change. As reported in the Site Investigation Report, impact to groundwater was localized detecting concentrations of volatile compounds in groundwater from only monitoring well MW-3S. Volatile concentrations were detected above groundwater standards in groundwater sampled during the Site Investigation dated 1999 and as presented in Appendix A on Table 3. Groundwater from all other monitoring wells sampled was reported at non-detectable results or as estimated concentrations below groundwater standards.

Since the Site Management Plan has been finalized, some changes have occurred to the site. All monitoring wells as listed in the Site Management Plan except for MW-11S have been reported from a recent site inspection as either damaged or missing. The City began site development in March 2010 which includes a 10th Avenue roadway extension with water and sewer utilities. The proposed roadway and 8-inch diameter waterline conflicted with monitoring well MW-3S location. As a result of this conflict, the City has requested to the NYSDEC to replace monitoring well MW-3S and move its location approximately 65-feet to the north of its present location as stated in a letter dated January 7, 2010 and presented in Appendix A. Well relocation will require drilling and installation of a new monitoring well. The NYSDEC has approved this change.

However, during construction of the 10th Avenue roadway extension, the waterline was moved to the other side of the street which allowed for new monitoring well MW-3S to be installed at approximately the same location as the original monitoring well MW-3S location. The location of monitoring well MW-3S is presented in Appendix A.

2.4 2011 Groundwater Monitoring

The 2011 monitoring program at the Roblin Steel site will consist of one annual sampling event. Groundwater was sampled from monitoring well MW-3S on July 21, 2011. This sampling event represents the second event of the Roblin Steel groundwater monitoring program.

Groundwater sampling of monitoring MW-3S was collected using low-flow purging and sampling techniques. Prior to sampling, the monitoring well was purged using a disposable

bailer. Groundwater parameters of pH, conductance, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP) were recorded. After the field parameters were recorded, groundwater sampling was collected with a disposable bailer into sample containers provided by the testing laboratory. Groundwater elevation data was recorded. Purge water generated from monitoring well MW-3S was discharged to the ground.

Several quality control samples, including a trip blank and a field duplicate were collected during the sampling event. Samples were delivered under a chain of custody to ESC Lab Sciences for analysis of VOCs by USEPA SW-846 Method 8260. The specific sampling protocol to be used, including sample preservation techniques, QA/QC objectives, a description of chain-of-custody documentation, and analytical parameters are included in the approved Site Management Plan.

Decommissioning of existing site monitoring wells was completed in 2010. During the drilling and installation of monitoring well MW-3S, the well installer decommissioned (8) existing monitoring wells.

SECTION 3 - GROUNDWATER MONITORING RESULTS

This section includes the analytical test results of the 2011 annual groundwater sampling event and is presented in Table 1. Included in this section are descriptions of the identification and distribution of constituents present in groundwater, and a comparison of historical data. Constituents are compared to the applicable NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Groundwater Standards and Guidance Values.

Analytical testing from the 2011 sampling event detected cis-1,2-dichloroethene at concentrations that exceeded the groundwater standards. Concentrations of methyl-t-butyl ether (MTBE), trichloroethene, and vinyl chloride were detected and estimated at concentrations below detection limits and the groundwater standards.

Trend analysis of volatile compounds from the comparison of site historical data dated 1999, 2010 and 2011 analytical test results showed decreasing concentrations of cis-1,2-dichloroethene. Concentrations of trichloroethene increased from 2010 to 2011. Concentrations of methyl-t-butyl ether (MTBE) and vinyl chloride decreased from 2010 to 2011.

Total VOCs detected in groundwater decreased from 2010 to 2011.

TABLE 1
MONITORING WELL MW-3S
VOLATILE ORGANIC ANALYTICAL TEST RESULTS
ROBLIN STEEL SITE

Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards[1]	Units	09/29/99	07/01/10	07/21/11
1,1,1-Trichloroethane	5	µg/L	U	U	U
1,1,2,2-Tetrachloroethane	5	µg/L	U	U	U
1,1,2-Trichlo-1,2,2-trifluoroethane	5	µg/L	-	U	U
1,1,2-Trichloroethane	1	µg/L	U	U	U
1,1-Dichloroethane	5	µg/L	U	U	U
1,1-Dichloroethene	5	µg/L	U	U	U
1,2,3-Trichlorobenzene	5	µg/L	-	U	U
1,2,4-Trichlorobenzene	5	µg/L	-	U	U
1,2-Dibromo-3-Chloropropane DBCP	0.04	µg/L	-	U	U
1,2-Dibromoethane (EDB)	NE	µg/L	-	U	U
1,2-Dichlorobenzene	3	µg/L	-	U	U
1,2-Dichloroethane	0.6	µg/L	U	U	U
1,2-Dichloropropane	5	µg/L	U	U	U
1,3-Dichlorobenzene	3	µg/L	-	U	U
1,4-Dichlorobenzene	3	µg/L	-	U	U
2-Hexanone	50	µg/L	U	U	U
Acetone	50	µg/L	UJ	**29 J**	U
Benzene	1	µg/L	U	U	U
Bromoform	50	µg/L	U	U	U
Bromomethane	5	µg/L	UJ	U	U
Bromodichloromethane	50.0	µg/L	U	U	U
Carbon disulfide	60	µg/L	U	U	U
Carbon tetrachloride	5	µg/L	U	U	U
Chlorobenzene	5	µg/L	U	U	U
Chloroethane	5	µg/L	UJ	U	U
Chloroform	7	µg/L	U	U	U
Chloromethane	NE	µg/L	U	U	U
cis-1,2-Dichloroethene	5	µg/L	**62**	**28**	**23**
cis-1,3-Dichloropropene	0.40	µg/L	U	U	U
Cyclohexane	NE	µg/L	-	**0.31J**	U
Dibromochloromethane	50	µg/L	U	-	-
Dichlorobromoethane	NE	µg/L	-	U	U
Dichlorodifluoromethane	5	µg/L	-	U	U
Ethylbenzene	5	µg/L	U	U	U
Isopropylbenzene	5	µg/L	-	U	U
Methyl acetate	NE	µg/L	-	U	U
Methyl Ethyl Ketone	50	µg/L	U	U	U
Methylcyclohexane	NE	µg/L	-	U	U
Methylene chloride	5	µg/L	U	U	U
Methyl-t-Butyl Ether (MTBE)	10	µg/L	U	**4.9J**	**1.7**
m,p-Xylene	5	µg/L	U	U	U
o-Xylene	5	µg/L	U	U	U
Styrene	5	µg/L	U	UJ	UJ
Tetrachloroethene	5	µg/L	**40**	U	U
Toluene	5	µg/L	U	U	U
Total Xylenes	5	µg/L	U	U	U
trans-1, 2-Dichloroethene	5	µg/L	U	**0.43J**	U
trans-1,3-Dichloropropene	0.4	µg/L	U	U	U
Trichloroethene	5	µg/L	**56**	**0.34J**	**1.5**
Trichlorofluoromethane	5	µg/L	-	U	U
Vinyl Chloride	2	µg/L	U	**0.74J**	**0.42J**
Total VOCs		µg/L	158	64	27
Total VOCs		mg/L	0.158	0.064	0.027

Notes:

1. New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1: Ambient Water Quality Standards and Guidance Values (µg/L)

Bolded concentrations indicated the analyte was detected.

Bolded and shaded concentrations indicate equal to or exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

U = The analyte was analyzed for but not detected. The associated value is the analyte quantitation limit.

J = The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

- = The analyte was not sampled for.

SECTION 4 - SOIL MANAGEMENT PLAN

The objective of this Soils Management Plan (SMP) is to set guidelines for management of soil material during any future activities which would breach the cover system at the site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC).

4.1 Description of Institutional and Engineering Controls

Institutional and engineering controls are required by the NYSDEC Record of Decision (ROD) dated February 2002 and include the environmental easement for future redevelopment and ownership of the site. The approved soils management plan addresses the excavation procedures for the remaining soils during future redevelopment. The soil management plan includes soil management, characterization and disposal of excavated soils in accordance with the applicable NYSDEC regulations.

The ROD and environmental easement require the imposition of a deed restriction that requires compliance with the approved soils management plan and the future use of groundwater from the site. Deed restrictions are to be instituted that prohibit the installation of potable wells at the site. Any future use of groundwater at the site is prohibited. Annually, the future owners will be required to certify to the NYSDEC that the implemented remedy has been maintained in accordance with the soils management plan.

The site owner as required by the NYSDEC has included the signed Institutional & Engineering Controls Certification Form as presented in Appendix B.

4.2 Nature and Extent of Contamination

During the site investigation activities, six areas of impacted soil were identified. These six impacted soil areas were excavated, removed and disposed off-site during the site remediation. Impacted soils were sampled and categorized to delineate the extent of the contamination for waste characterization for off-site disposal. The impacted soils were excavated to a depth of 1-foot as defined in the NYSDEC issued Record of Decision.

Five impacted soil areas contained semi-volatile chemical compounds which included polycyclic aromatic hydrocarbons (PAHs) and metals. The removed impacted soils were confined to surficial soils. Any visual soil impacted as defined as darken, oily materials beyond the depth of the first 12-inches were also removed. The potential exposure pathways include inhalation, absorption, ingestion and contact. Health effects from exposure to these chemical compounds are skin and respiratory irritants.

The sixth impacted soil area contained poly chlorinated byphenyls (PCBs), which was excavated, removed and disposed off-site to a depth ranging from 12 to 18-inches. After excavation of the PCB impacted soils, confirmatory soil samples were collected to confirm no PCB impacted soils were present. The potential exposure pathways include inhalation, absorption, ingestion and contact. Health effects from exposure to these chemical compounds are eye, skin and acne form irritants.

4.3 Contemplated Use

As part of the redevelopment project, the property has been identified for light industrial/commercial usage. Residential redevelopment will not be permitted. Deed restrictions will require compliance with the approved soil management plan. The future use of site groundwater will be prohibited.

4.4 Purpose and Description of Surface Cover System

The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system that was used to fill the excavated impacted soil areas was 12-inches of crushed concrete that was recycled from demolished site concrete foundations. An additional 4-inches of topsoil was spread over the crushed concrete fill to provide a vegetative supporting soil cover.

4.5 Management of Soils/Fill and Long Term Maintenance

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the cover system. The Soil Management Plan includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded or covered with impervious product such as concrete or asphalt, as described in Section 4, to prevent erosion in the future.

- The immediate work area that will be disturbed must be monitored for particulate air monitoring. Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the work area at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (MIE DataRAM Aerosol Monitor) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level.

  If the downwind particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

  If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

- Control of surface erosion and run-off of the entire property at all times, including during construction activities. This includes proper maintenance of the vegetative cover established on the property. Maintenance of the surface drainage system located at the north eastern corner of the site at Oliver Street and East Avenue will be required.

- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and is placed beneath a cover system component of 12-inches of clean fill from an acceptable source area.

- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.

4.6 Excavated and Stockpiled Soil/Fill Disposal

Every effort will be made to keep excavated soils on site. Soil/fill that is excavated as part of redevelopment that can not be used as fill below the cover system will be characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2,000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2,000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for pH (EPA Method 9045C), Target Compound List (TCL), semi volatile organic compounds (SVOCs), pesticides, and PCBs, and TAL metals. The grab sample will be analyzed for TCL VOCs.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer

may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received.

4.7 Subgrade Materials

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

- Subgrade material stockpiled on the surface for re-use must be placed on a liner material or other suitable surface to avoid the commingling of this material with clean topsoil or other surface materials. Stockpiled subgrade material should also be managed to prevent erosion and runoff of precipitation waters which may contact this material.

- Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the Soil Cleanup Objectives and Cleanup Levels (SCOCLs) as presented in Tables 2, 3, and 4, the soil/fill can be used as backfill on-site.

- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

- Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

- If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

- Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs,

arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The soil will be acceptable for use as backfill provided that all parameters meet the SCOCLs.

- Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet SCOCLs, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the SCOCLs.

4.8 Site Usage 2009 - 2011

No excavation took place on-site in 2009. Construction for the 10th Street Extension including water, sewer and natural gas utilities, was implemented and completed during 2010. Excavation and removal of soil was conducted in accordance with the Soil management Plan.

No building activity took place in 2011. However, three trailers were found parked illegally and abandoned on site. Trailers contained old equipment, a car, and other common trash. Three 55-gallon drums were encountered that were filled with a white powder. This powder was evident throughout the one trailer that appears to be spilled materials from the drums. Approximately nine to ten 5-gallon drums were found sealed with full or half full contents of suspicious materials. No sampling of materials to date has yet been completed. The City is in the process of contracting the sampling and waste disposal of these drums and wastes.

Site development is anticipated since construction is complete preparing lots with utility service connections. Additional site disturbances will occur once new development moves into the site. Future excavation will follow Soil Management Plan guidelines.

Table 2
SEMI-VOLATILE ORGANIC COMPOUNDS

Compound	Soil Standard (mg/kg)
Naphthalene	500
Acenapthylene	500
Acenapthene	500
Fluorene	500
Phenanthrene	500
Anthracene	500
Fluoranthene	500
Pyrene	500
Benzo (a) anthracene	5.6
Chrysene	56
Benzo (b) fluoranthene	5.6
Benzo (k) fluoranthene	5.6
Benzo (a) pyrene	1
Indeno (1,2,3-c,d) pyrene	5.6
Dibenzo (a,h) anthracene	0.56
Benzo (g,h,i) perylene	500

Note: Standards based on Restricted Use Soil Cleanup Objectives for Commercial Use (NYSDEC, effective December 14, 2006)

Table 3
PCBs

Compound	Soil Standard (ug/kg)
Aroclor 1016	1,000
Aroclor 1221	1,000
Aroclor 1232	1,000
Aroclor 1242	1,000
Aroclor 1248	1,000
Aroclor 1254	1,000
Aroclor 1260	1,000

Note: Standards based on Determination of Soil Cleanup Objectives and Cleanup Levels (NYSDEC, January 1994)

Table 4
METALS

Compound	Soil Standard (mg/kg)
Aluminum	SB
Antimony	SB
Arsenic	16
Barium	400
Beryllium	590
Cadmium	9.3
Calcium	SB
Chromium	400
Cobalt	SB
Copper	270
Iron	SB
Lead	SB*
Magnesium	SB
Manganese	10,000
Mercury	2.8
Nickel	310
Potassium	SB
Selenium	1500
Silver	1500
Sodium	SB
Thallium	SB
Vanadium	SB
Zinc	10,000

Note: Standards based on Determination of Soil Cleanup (NYSDEC, effective December 14, 2006)
**Background levels for lead vary widely*
SB = Site Background

SECTION 5 - CONCLUSIONS

Analytical testing from the 2011 sampling event detected cis-1,2-dichloroethene at concentrations that exceeded the groundwater standards. Concentrations of methyl-t-butyl ether (MTBE), trichloroethene, and vinyl chloride at concentrations were detected and estimated below detection limits and the groundwater standards.

Trend analysis of volatile compounds from the comparison of site historical data dated 1999, 2010 and 2011 analytical test results showed decreasing concentrations of cis-1,2-dichloroethene. Concentrations of trichloroethene increased from 2010 to 2011. Concentrations of methyl-t-butyl ether (MTBE) and vinyl chloride decreased from 2010 to 2011. Total VOCs detected in groundwater decreased from 2010 to 2011.

APPENDICES

APPENDIX A

GROUNDWATER MONITORING PROGRAM REVISION

GHD
STEARNS & WHELER
CLIENTS|PEOPLE|PERFORMANCE

City of North Tonawanda
Department of Engineering
City Hall, 216 Payne Avenue
North Tonawanda, NY 14120-5493
www.northtonawanda.org

Dale W. Marshall, P. E.
City Engineer
Phone: **(716) 695-8565**
Fax: **(716) 695-8568**

January 7, 2010

Mr. Jeffrey Konsella, P.E.
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Re: Roblin Steel Groundwater Monitoring

Dear Mr. Konsella:

The City of North Tonawanda proposes modifications to the groundwater monitoring at the Roblin Steel Site. As stated in the approved Site Management Plan dated March 2007, annual monitoring will be performed on groundwater samples for a minimum period of 30 years or at a reduced frequency and period as approved by NYSDEC. Groundwater monitoring will initially be conducted after the remediation has been completed and thereafter on an annual basis. As stated in the Site Management Plan, groundwater samples will be collected from monitoring wells: GW-3S, GW-3, GW-11S, GW-12S, and GW-18S and tested for Volatile Organic Compounds (VOCs) under EPA Method 8260 TCL.

As reported in the Site Investigation Report, impacts to groundwater were localized detecting concentrations of volatile compounds in groundwater from only monitoring well MW-3S. Detected volatile concentrations were above groundwater standards as presented on the attached Table 3 of the Site Investigation Report. Groundwater from all other wells sampled was reported at non-detectable results or as estimated concentrations below groundwater standards.

Since the Site Management Plan has been finalized, some changes have occurred to the site. All monitoring wells as listed in the Site Management Plan except for MW-11S have been reported from a recent site inspection as either damaged or missing. The City has begun site development which includes a roadway extension of Tenth Avenue as presented on Figure 1. The proposed roadway and 8-inch diameter waterline conflicts with monitoring well MW-3S location.

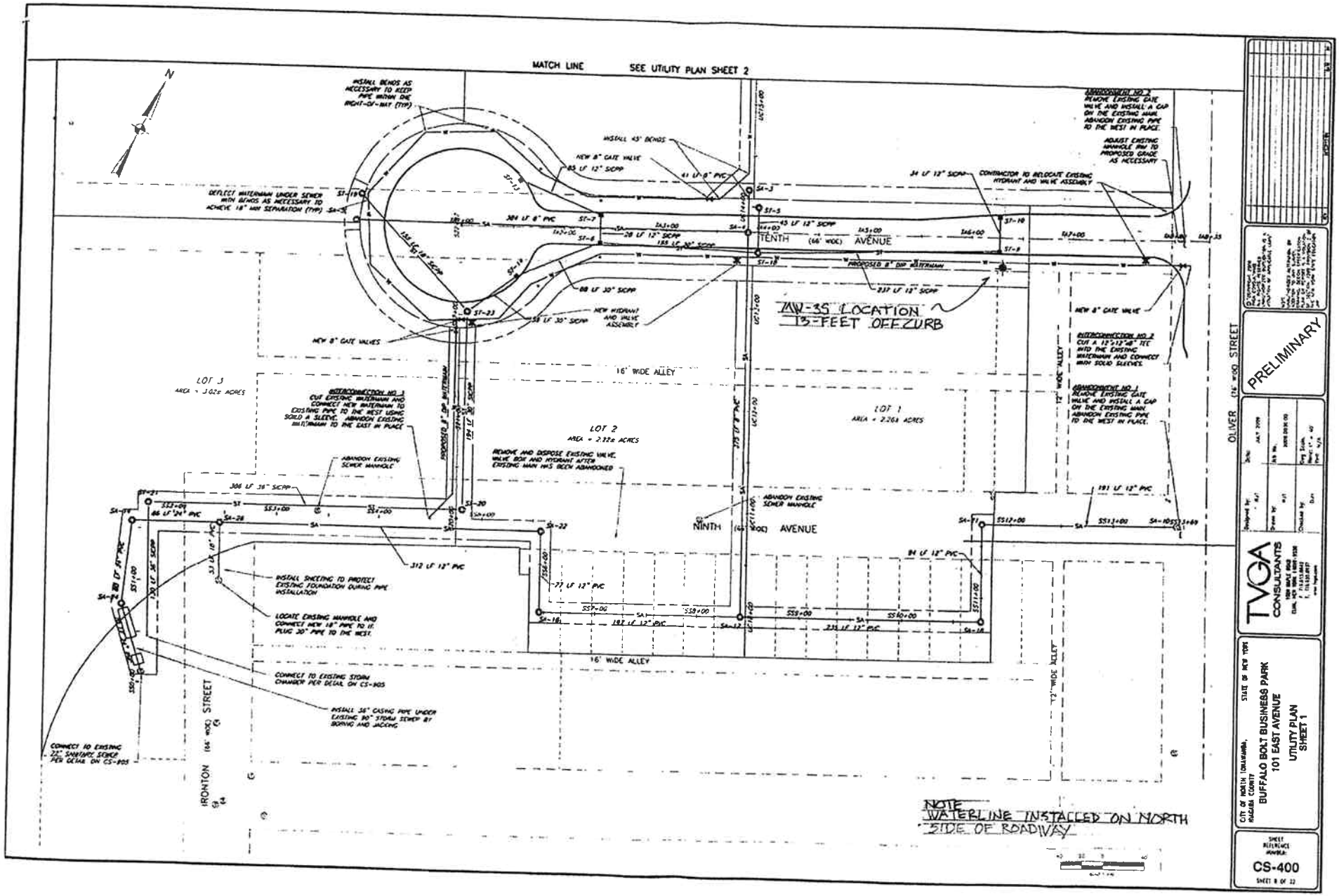
The City proposes to replace monitoring well MW-3S and move its location approximately 65-feet to the north of its old location. The new location would be located within the proposed road right-of-way area outside from proposed pavement and curb area. The proposed location of monitoring well MW-3S is presented on Figure 1. The City proposes to only sample groundwater from monitoring well MW-3S. Analytical testing will include Volatile Organic Compounds (VOCs) under EPA Method 8260 TCL.

Very truly yours,

Dale Marshall, P.E.
City Engineer

Cc: file, w/a
David Rowlinson, Stearns & Wheler, LLC - GHD

Z:\Engineering\PROJECTS\Roblin 2008\Groundwater Well Sampling Letter DEC1.doc


MATCH LINE
SEE UTILITY PLAN SHEET 2
N
INSTALL BENDS AS NECESSARY TO KEEP PIPE WITHIN THE RIGHT-OF-WAY (TYP)
DEFLECT WATERMAIN UNDER SEWER WITH BENDS AS NECESSARY TO ACHIEVE 18" MIN SEPARATION (TYP)
INSTALL 45° BENDS
NEW 8" GATE VALVE
83 LF 12" SCPP
41 LF 8" PVC
304 LF 8" PVC
28 LF 12" SCPP
155 LF 18" SCPP
189 LF 30" SCPP
68 LF 30" SCPP
58 LF 30" SCPP
NEW HYDRANT AND VALVE ASSEMBLY
NEW 8" GATE VALVES
TENTH (66' WIDE) AVENUE
45 LF 12" SCPP
34 LF 12" SCPP
CONTRACTOR TO RELOCATE EXISTING HYDRANT AND VALVE ASSEMBLY
ABANDONMENT NO. 2
REMOVE EXISTING GATE VALVE AND INSTALL A CAP ON THE EXISTING MAIN. ABANDON EXISTING PIPE TO THE WEST IN PLACE.
ADJUST EXISTING MANHOLE RIM TO PROPOSED GRADE AS NECESSARY
PROPOSED 8" DIP WATERMAIN
237 LF 12" SCPP
TAW-35 LOCATION
15-FEET OFF ZURB
NEW 8" GATE VALVE
INTERCONNECTION NO. 2
CUT A 12"x12"x8" TEE INTO THE EXISTING WATERMAIN AND CONNECT WITH SOLID SLEEVES.
ABANDONMENT NO. 1
REMOVE EXISTING GATE VALVE AND INSTALL A CAP ON THE EXISTING MAIN. ABANDON EXISTING PIPE TO THE WEST IN PLACE.
OLIVER (16' WIDE) STREET
16' WIDE ALLEY
LOT 3
AREA = 3.02± ACRES
INTERCONNECTION NO. 1
CUT EXISTING WATERMAIN AND CONNECT NEW WATERMAIN TO EXISTING PIPE TO THE WEST USING SOLID A SLEEVE. ABANDON EXISTING WATERMAIN TO THE EAST IN PLACE
PROPOSED 8" DIP WATERMAIN
191 LF 30" SCPP
LOT 2
AREA = 2.22± ACRES
REMOVE AND DISPOSE EXISTING VALVE BOX AND HYDRANT AFTER EXISTING MAIN HAS BEEN ABANDONED
ABANDON EXISTING SEWER MANHOLE
LOT 1
AREA = 2.26± ACRES
12' WIDE ALLEY
275 LF 8" PVC
191 LF 12" PVC
306 LF 36" SCPP
66 LF 24" PVC
312 LF 12" PVC
84 LF 12" PVC
77 LF 12" PVC
192 LF 12" PVC
235 LF 12" PVC
NINTH (66' WIDE) AVENUE
INSTALL SHEETING TO PROTECT EXISTING FOUNDATION DURING PIPE INSTALLATION
LOCATE EXISTING MANHOLE AND CONNECT NEW 18" PIPE TO IT. PLUG 30" PIPE TO THE WEST.
CONNECT TO EXISTING STORM CHAMBER PER DETAIL ON CS-905
INSTALL 36" CASING PIPE UNDER EXISTING 90" STORM SEWER BY BORING AND JACKING
CONNECT TO EXISTING 21" SANITARY SEWER PER DETAIL ON CS-905
IRONTON (66' WIDE) STREET
16' WIDE ALLEY
NOTE
WATERLINE INSTALLED ON NORTH SIDE OF ROADWAY
PRELIMINARY
TVGA CONSULTANTS
CITY OF NORTH TULSA, TULSA COUNTY, STATE OF NEW YORK
BUFFALO BOLT BUSINESS PARK
101 EAST AVENUE
UTILITY PLAN
SHEET 1
SHEET REFERENCE NUMBER
CS-400
SHEET 8 OF 22

APPENDIX B

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233
Phone: (518) 402-9553 **Fax:** (518) 402-9577
Website: www.dec.ny.gov

Joe Martens
Commissioner

1/17/2012

Mr. Dale Marshall
City Engineer
Municipal
City Hall, 216 Payne Avenue
North Tonawanda, NY 14120

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Former Roblin Steel Site
Site No.: B00025
Site Address: 101 East Avenue

North Tonawanda, NY 14120

Dear Mr. Dale Marshall:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **March 15, 2012**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Brian Sadowski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: bpsadows@gw.dec.state.ny.us

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Brian Sadowski, Project Manager
Greg Sutton, Hazardous Waste Remediation Engineer, Region 9
Steven Bates, DOH
Stearns and Wheler

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7)**:**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **B00025**

Site Name Former Roblin Steel Site

Site Address: 101 East Avenue Zip Code: 14120
City/Town: North Tonawanda
County: Niagara
Site Acreage: 23.7

Reporting Period: February 14, 2011 to February 14, 2012

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☒	☐
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. B00025 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
181.12-1-14.11	City of North Tonawanda	Ground Water Use Restriction Landuse Restriction Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
181.12-1-14.11	Cover System

Engineering Control Details for Site No. B00025

Parcel: 181.12-1-14.11

The summary of the Environmental Easement is as follows:

The property may be used for commercial/industrial purposes (excluding uses for day care, child care, and medical care, unless such use is approved in writing by the DEC and NYSDOH) as long as the following long-term engineering controls are employed:

(i) Soils and fill materials encountered during any construction or development activity below the crushed concrete cover layer must be handled in accordance with provisions of the Roblin Steel Site Soils Management Plan, dated February, 2006. Excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

(ii) Should subsequent construction or development activities require the decommissioning (removal) of existing groundwater monitoring wells, the wells will be decommissioned in accordance with DEC guidance. Replacement monitoring wells may be required by the DEC.

(iii) A long term ground water monitoring program is required per the approved Roblin Steel Operation, Maintenance, and Monitoring Plan, which is contained in the approved Roblin Steel Site Management Plan, dated February, 2006. The City of North Tonawanda is required to conduct the periodic sampling, analysis, and reporting for the groundwater monitoring program.

(iv) Future uses of the site groundwater are prohibited unless authorized in writing by the DEC and NYSDOH.

The property may not be used for a higher level of use such as residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

The City or any furture owners will submit annual (or such intervals as NYSDEC may allow)certification that the controls employed at the property are unchanged from the previous certification, or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such controls to protect the public health and environment.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. B00025

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Dale W. Marshall (print name) at 216 Payne Ave, N. Tonawanda, NY 14120 (print business address)

am certifying as North Tonawanda City Engineer (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Dale W. Marshall, PE
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

Date 1/20/12

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ROBERT ARMSTRONG at 415 NORTH FRENCH RD, AMHERST, NY
print name print business address

am certifying as a Professional Engineer for the GHD
(Owner or Remedial Party)

Robert Armstrong 1/26/12

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

APPENDIX C

SAMPLING AND WELL LOGS

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Roblin Steel Site

DATE: 07/21/11

Sampler: Brian Doyle

SAMPLE ID: GW-3S

Depth of well (from top of casing).....	15 ft	EL 562.04
Initial static water level (from top of casing)....	7.3 ft	EL 569.7
Top of PVC Casing Elevation	577.04	

Evacuation Method:

Peristaltic		Centrifugal			
Airlift		Pos. Displ.			
Bailer	X	>>> No. of bails			

Well Volume Calculation

1 in. casing:		ft. of water x .09 =		gallons
2 in. casing:	7.7	ft. of water x .16 =	1.23	gallons
3 in. casing:		ft. of water x .36 =		gallons

Volume of water removed: 3.70 gals.

> 3 volumes: **yes** no

dry: yes **no**

Field Tests:

Temp:	20.33	C
pH	7.19	
Conductivity	0.822	mS/cm
DO	4.69	mg/L
Turbidity	NA	NTUs
Oxidation Reduction Potential (ORP)	-14.0	mV

Sampling:

Time: 10:15 AM

Sampling Method:

Peristaltic Pump	
Disposable Bailer	X
Disposable Tubing	

Observations:

Weather/Temperature: Clear, 70° F

Physical Appearance and Odor of Sample: Initially clear, then brownish and turbid. No odor.

Comments: 9/16" socket needed to open cover.
Well is at grade.
Field equipment unable to record a turbidity reading due to very murky water.

ROBLIN STEEL SITE
CITY OF NORTH TONAWANDA, NEW YORK
SITE INSPECTION LOG SHEET

Inspector (Print): Brain Doyle

Inspector (Signature): _____

Date of Inspection: 7/21/2011

1. Fencing, Gates, and Access

Fence Intact	Yes, fencing around east and west sides of the perimeter
Gates Working	NA
Locks Operable	NA
Access Road Condition	Good

2. Waterways and Ditches

Signs of Erosion	None
Blockage of Drainage Pathway	None
Culverts Clear of Obstructions	Yes
Ponded Water Areas	None

3. Monitoring Wells - Well Casing, Cap, and Locks in Place and in Good Condition

New monitoring well MW-3S was installed flush mount near the original well location.
Remaining original monitoring wells were abandoned and filled with grout

4. Evidence of Vandalism/Site Usage by Others

None

Comments/Action Required:

APPENDIX D

ANALYTICAL TEST RESULTS

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

Sample ID : MW-35

Collected By : Brian Doyle
Collection Date : 07/21/11 12:30

ESC Sample # : L527447-01

Site ID :

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.016	0.050	mg/l		8260B	07/23/11	1
Benzene	U J	0.00023	0.0010	mg/l		8260B	07/23/11	1
Bromochloromethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
Bromodichloromethane	U J	0.00023	0.0010	mg/l		8260B	07/23/11	1
Bromoform	U	0.00037	0.0010	mg/l		8260B	07/23/11	1
Bromomethane	U J	0.0016	0.0050	mg/l		8260B	07/23/11	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	07/23/11	1
Carbon tetrachloride	U J	0.00020	0.0010	mg/l		8260B	07/23/11	1
Chlorobenzene	U J	0.00030	0.0010	mg/l		8260B	07/23/11	1
Chlorodibromomethane	U	0.00024	0.0010	mg/l		8260B	07/23/11	1
Chloroethane	U	0.00087	0.0050	mg/l		8260B	07/23/11	1
Chloroform	U	0.00027	0.0050	mg/l		8260B	07/23/11	1
Chloromethane	U	0.00076	0.0025	mg/l		8260B	07/23/11	1
Cyclohexane	U R	0.00030	0.0010	mg/l		8260B	07/23/11	1
1,2-Dibromo-3-Chloropropane	U	0.0013	0.0050	mg/l		8260B	07/23/11	1
1,2-Dibromoethane	U J	0.00027	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichlorobenzene	U	0.00029	0.0010	mg/l		8260B	07/23/11	1
1,3-Dichlorobenzene	U	0.00029	0.0010	mg/l		8260B	07/23/11	1
1,4-Dichlorobenzene	U	0.00031	0.0010	mg/l		8260B	07/23/11	1
Dichlorodifluoromethane	U	0.0016	0.0050	mg/l		8260B	07/23/11	1
1,1-Dichloroethane	U	0.00032	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichloroethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
1,1-Dichloroethene	U	0.00041	0.0010	mg/l		8260B	07/23/11	1
cis-1,2-Dichloroethene	0.023	0.00034	0.0010	mg/l		8260B	07/23/11	1
trans-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichloropropane	U J	0.00039	0.0010	mg/l		8260B	07/23/11	1
cis-1,3-Dichloropropene	U J J	0.00025	0.0010	mg/l		8260B	07/23/11	1
trans-1,3-Dichloropropene	U J J	0.00024	0.0010	mg/l		8260B	07/23/11	1
Ethylbenzene	U J J	0.00022	0.0010	mg/l		8260B	07/23/11	1
2-Hexanone	U J	0.0036	0.010	mg/l		8260B	07/23/11	1
Isopropylbenzene	U J J	0.00020	0.0010	mg/l		8260B	07/23/11	1
2-Butanone (MEK)	U	0.0034	0.010	mg/l		8260B	07/23/11	1
Methyl Acetate	U R	0.0066	0.020	mg/l		8260B	07/23/11	1
Methyl Cyclohexane	U R	0.00033	0.0010	mg/l		8260B	07/23/11	1
Methylene Chloride	U	0.00079	0.0050	mg/l		8260B	08/02/11	1
4-Methyl-2-pentanone (MIBK)	U J	0.0017	0.010	mg/l		8260B	07/23/11	1
Methyl tert-butyl ether	0.0017	0.00063	0.0010	mg/l		8260B	07/23/11	1
Styrene	U J	0.00024	0.0010	mg/l	J4	8260B	07/23/11	1
1,1,2,2-Tetrachloroethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
Tetrachloroethene	U J	0.00032	0.0010	mg/l		8260B	07/23/11	1
Toluene	U J	0.00032	0.0050	mg/l		8260B	07/23/11	1
1,2,3-Trichlorobenzene	U	0.00032	0.0010	mg/l		8260B	07/23/11	1

U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD
RDL = Reported Detection Limit = LOQ = PQL = EQL
Note:
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Est. 1970

REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

ESC Sample # : L527447-01

Sample ID : MW-35

Site ID :

Collected By :
Collection Date : 07/21/11 12:30

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trichlorobenzene	U	0.00035	0.0010	mg/l		8260B	07/23/11	1
1,1,1-Trichloroethane	U J	0.00031	0.0010	mg/l		8260B	07/23/11	1
1,1,2-Trichloroethane	U J	0.00029	0.0010	mg/l		8260B	07/23/11	1
Trichloroethene	0.0015 J	0.00031	0.0010	mg/l		8260B	07/23/11	1
Trichlorofluoromethane	U J	0.0011	0.0050	mg/l		8260B	07/23/11	1
1,1,2-Trichloro-1,2,2-trifluoro	U	0.00039	0.0010	mg/l		8260B	07/23/11	1
Vinyl chloride	0.00042	0.00034	0.0010	mg/l	J	8260B	07/23/11	1
Xylenes, Total	U J	0.00086	0.0030	mg/l		8260B	07/23/11	1
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	07/23/11	1
Dibromofluoromethane	131.			% Rec.	J1	8260B	07/23/11	1
a,a,a-Trifluorotoluene	107.			% Rec.		8260B	07/23/11	1
4-Bromofluorobenzene	82.4			% Rec.		8260B	07/23/11	1

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Est. 1970

REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

Sample ID : FD

Collected By : Brian Doyle
Collection Date : 07/21/11 12:30

ESC Sample # : L527447-02

Site ID :

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.016	0.050	mg/l		8260B	07/23/11	1
Benzene	U J	0.00023	0.0010	mg/l		8260B	07/23/11	1
Bromochloromethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
Bromodichloromethane	U J	0.00023	0.0010	mg/l		8260B	07/23/11	1
Bromoform	U	0.00037	0.0010	mg/l		8260B	07/23/11	1
Bromomethane	U J	0.0016	0.0050	mg/l		8260B	07/23/11	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	07/23/11	1
Carbon tetrachloride	U J	0.00020	0.0010	mg/l		8260B	07/23/11	1
Chlorobenzene	U J	0.00030	0.0010	mg/l		8260B	07/23/11	1
Chlorodibromomethane	U	0.00024	0.0010	mg/l		8260B	07/23/11	1
Chloroethane	U	0.00087	0.0050	mg/l		8260B	07/23/11	1
Chloroform	U	0.00027	0.0050	mg/l		8260B	07/23/11	1
Chloromethane	U	0.00076	0.0025	mg/l		8260B	07/23/11	1
Cyclohexane	U R	0.00030	0.0010	mg/l		8260B	07/23/11	1
1,2-Dibromo-3-Chloropropane	U	0.0013	0.0050	mg/l		8260B	07/23/11	1
1,2-Dibromoethane	U J	0.00027	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichlorobenzene	U	0.00029	0.0010	mg/l		8260B	07/23/11	1
1,3-Dichlorobenzene	U	0.00029	0.0010	mg/l		8260B	07/23/11	1
1,4-Dichlorobenzene	U	0.00031	0.0010	mg/l		8260B	07/23/11	1
Dichlorodifluoromethane	U	0.0016	0.0050	mg/l		8260B	07/23/11	1
1,1-Dichloroethane	U	0.00032	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichloroethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
1,1-Dichloroethene	U	0.00041	0.0010	mg/l		8260B	07/23/11	1
cis-1,2-Dichloroethene	0.024	0.00034	0.0010	mg/l		8260B	07/23/11	1
trans-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	07/23/11	1
1,2-Dichloropropane	U J	0.00039	0.0010	mg/l		8260B	07/23/11	1
cis-1,3-Dichloropropene	U J	0.00025	0.0010	mg/l		8260B	07/23/11	1
trans-1,3-Dichloropropene	U J	0.00024	0.0010	mg/l		8260B	07/23/11	1
Ethylbenzene	U J	0.00022	0.0010	mg/l		8260B	07/23/11	1
2-Hexanone	U J	0.0036	0.010	mg/l		8260B	07/23/11	1
Isopropylbenzene	U J	0.00020	0.0010	mg/l		8260B	07/23/11	1
2-Butanone (MEK)	U	0.0034	0.010	mg/l		8260B	07/23/11	1
Methyl Acetate	U R	0.0066	0.020	mg/l		8260B	07/23/11	1
Methyl Cyclohexane	U R	0.00033	0.0010	mg/l		8260B	07/23/11	1
Methylene Chloride	U	0.00079	0.0050	mg/l		8260B	08/02/11	1
4-Methyl-2-pentanone (MIBK)	U J	0.0017	0.010	mg/l		8260B	07/23/11	1
Methyl tert-butyl ether	0.0019	0.00063	0.0010	mg/l		8260B	07/23/11	1
Styrene	U J	0.00024	0.0010	mg/l	J4	8260B	07/23/11	1
1,1,2,2-Tetrachloroethane	U	0.00025	0.0010	mg/l		8260B	07/23/11	1
Tetrachloroethene	U J	0.00032	0.0010	mg/l		8260B	07/23/11	1
Toluene	U J	0.00032	0.0050	mg/l		8260B	07/23/11	1
1,2,3-Trichlorobenzene	U	0.00032	0.0010	mg/l		8260B	07/23/11	1

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REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

Sample ID : FD

Collected By : Brian Doyle
Collection Date : 07/21/11 12:30

ESC Sample # : L527447-02

Site ID :

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trichlorobenzene	U	0.00035	0.0010	mg/l		8260B	07/23/11	1
1,1,1-Trichloroethane	U J3	0.00031	0.0010	mg/l		8260B	07/23/11	1
1,1,2-Trichloroethane	U J3	0.00029	0.0010	mg/l		8260B	07/23/11	1
Trichloroethene	0.0016 J	0.00031	0.0010	mg/l		8260B	07/23/11	1
Trichlorofluoromethane	U J	0.0011	0.0050	mg/l		8260B	07/23/11	1
1,1,2-Trichloro-1,2,2-trifluoro	U	0.00039	0.0010	mg/l		8260B	07/23/11	1
Vinyl chloride	0.00055	0.00034	0.0010	mg/l	J	8260B	07/23/11	1
Xylenes, Total	U J	0.00086	0.0030	mg/l		8260B	07/23/11	1
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	07/23/11	1
Dibromofluoromethane	136.			% Rec.	J1	8260B	07/23/11	1
a,a,a-Trifluorotoluene	109.			% Rec.		8260B	07/23/11	1
4-Bromofluorobenzene	78.9			% Rec.		8260B	07/23/11	1

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REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

Sample ID : TRIPBLANK

Collected By :
Collection Date : 07/21/11 12:30

ESC Sample # : L527447-03

Site ID :

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.011	0.050	mg/l		8260B	07/25/11	1
Benzene	U	0.00018	0.0010	mg/l		8260B	07/25/11	1
Bromochloromethane	U	0.00042	0.0010	mg/l		8260B	07/25/11	1
Bromodichloromethane	U	0.00021	0.0010	mg/l		8260B	07/25/11	1
Bromoform	U	0.00046	0.0010	mg/l		8260B	07/25/11	1
Bromomethane	U	0.00057	0.0050	mg/l		8260B	07/25/11	1
Carbon disulfide	U	0.00022	0.0010	mg/l		8260B	07/25/11	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	07/25/11	1
Chlorobenzene	U	0.00025	0.0010	mg/l		8260B	07/25/11	1
Chlorodibromomethane	U	0.00029	0.0010	mg/l		8260B	07/25/11	1
Chloroethane	U	0.0014	0.0050	mg/l		8260B	07/25/11	1
Chloroform	U	0.00022	0.0050	mg/l		8260B	07/25/11	1
Chloromethane	U	0.00046	0.0025	mg/l		8260B	07/25/11	1
Cyclohexane	U	0.00030	0.0010	mg/l		8260B	07/25/11	1
1,2-Dibromo-3-Chloropropane	U	0.0011	0.0050	mg/l		8260B	07/25/11	1
1,2-Dibromoethane	U	0.00044	0.0010	mg/l		8260B	07/25/11	1
1,2-Dichlorobenzene	U	0.00026	0.0010	mg/l		8260B	07/25/11	1
1,3-Dichlorobenzene	U	0.00025	0.0010	mg/l		8260B	07/25/11	1
1,4-Dichlorobenzene	U	0.00019	0.0010	mg/l		8260B	07/25/11	1
Dichlorodifluoromethane	U	0.00057	0.0050	mg/l		8260B	07/25/11	1
1,1-Dichloroethane	U	0.00029	0.0010	mg/l		8260B	07/25/11	1
1,2-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	07/25/11	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	07/25/11	1
cis-1,2-Dichloroethene	U	0.00027	0.0010	mg/l		8260B	07/25/11	1
trans-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	07/25/11	1
1,2-Dichloropropane	U	0.00047	0.0010	mg/l		8260B	07/25/11	1
cis-1,3-Dichloropropene	U	0.00023	0.0010	mg/l		8260B	07/25/11	1
trans-1,3-Dichloropropene	U	0.00024	0.0010	mg/l		8260B	07/25/11	1
Ethylbenzene	U	0.00027	0.0010	mg/l		8260B	07/25/11	1
2-Hexanone	U	0.0024	0.010	mg/l		8260B	07/25/11	1
Isopropylbenzene	U	0.00018	0.0010	mg/l		8260B	07/25/11	1
2-Butanone (MEK)	U	0.0030	0.010	mg/l		8260B	07/25/11	1
Methyl Acetate	U	0.0066	0.020	mg/l		8260B	07/25/11	1
Methyl Cyclohexane	U	0.00033	0.0010	mg/l		8260B	07/25/11	1
Methylene Chloride .0058	U	0.00091	0.0050	mg/l		8260B	07/25/11	1
4-Methyl-2-pentanone (MIBK)	U	0.00080	0.010	mg/l		8260B	07/25/11	1
Methyl tert-butyl ether	U	0.00063	0.0010	mg/l		8260B	07/25/11	1
Styrene	U	0.00024	0.0010	mg/l	J4	8260B	07/25/11	1
1,1,2,2-Tetrachloroethane	U	0.00029	0.0010	mg/l		8260B	07/25/11	1
Tetrachloroethene	U	0.00032	0.0010	mg/l		8260B	07/25/11	1
Toluene	U	0.00032	0.0050	mg/l		8260B	07/25/11	1
1,2,3-Trichlorobenzene	U	0.00030	0.0010	mg/l		8260B	07/25/11	1

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REPORT OF ANALYSIS

Mr. Dave Rowlinson
Stearns and Wheler
415 North French Rd., Ste. 100
Amherst, NY 14228

August 04, 2011

Date Received : July 22, 2011
Description : Roblin Steel

Sample ID : TRIPBLANK

Collected By :
Collection Date : 07/21/11 12:30

ESC Sample # : L527447-03

Site ID :

Project # : 8612403

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trichlorobenzene	U	0.00021	0.0010	mg/l		8260B	07/25/11	1
1,1,1-Trichloroethane	U	0.00024	0.0010	mg/l		8260B	07/25/11	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	07/25/11	1
Trichloroethene	U	0.00031	0.0010	mg/l		8260B	07/25/11	1
Trichlorofluoromethane	U	0.0011	0.0050	mg/l		8260B	07/25/11	1
1,1,2-Trichloro-1,2,2-trifluoro	U	0.00038	0.0010	mg/l		8260B	07/25/11	1
Vinyl chloride	U	0.00034	0.0010	mg/l		8260B	07/25/11	1
Xylenes, Total	U	0.00086	0.0030	mg/l		8260B	07/25/11	1
Surrogate Recovery								
Toluene-d8	95.4			% Rec.		8260B	07/25/11	1
Dibromofluoromethane	122.			% Rec.		8260B	07/25/11	1
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	07/25/11	1
4-Bromofluorobenzene	79.8			% Rec.		8260B	07/25/11	1

U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD
RDL = Reported Detection Limit = LOQ = PQL = EQL
Note:
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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Method Blank

Analyte	CAS	PQL	Qualifiers
Dichlorodifluoromethane	75-71-8	<0.0050	
Chloromethane	74-87-3	<0.0025	
Vinyl chloride	75-01-4	<0.0010	
Bromomethane	74-83-9	<0.0050	
Chloroethane	75-00-3	<0.0050	
Trichlorofluoromethane	75-69-4	<0.0050	
1,1-Dichloroethene	75-35-4	<0.0010	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	<0.0010	
Acetone	67-64-1	<0.0500	
Carbon disulfide	75-15-0	<0.0010	
trans-1,2-Dichloroethene	156-60-5	<0.0010	
Methyl tert-butyl ether	1634-04-4	<0.0010	
1,1-Dichloroethane	75-34-3	<0.0010	
cis-1,2-Dichloroethene	156-59-2	<0.0010	
2-Butanone (MEK)	78-93-3	<0.0100	
Bromochloromethane	74-97-5	<0.0010	
Chloroform	67-66-3	<0.0050	
1,1,1-Trichloroethane	71-55-6	<0.0010	
Carbon tetrachloride	56-23-5	<0.0010	
Benzene	71-43-2	<0.0010	
1,2-Dichloroethane	107-06-2	<0.0010	
Trichloroethene	79-01-6	<0.0010	
1,2-Dichloropropane	78-87-5	<0.0010	
Bromodichloromethane	75-27-4	<0.0010	
cis-1,3-Dichloropropene	10061-01-5	<0.0010	
4-Methyl-2-pentanone (MIBK)	108-10-1	<0.0100	
Toluene	108-88-3	<0.0050	
trans-1,3-Dichloropropene	10061-02-6	<0.0010	
1,1,2-Trichloroethane	79-00-5	<0.0010	
Tetrachloroethene	127-18-4	<0.0010	
2-Hexanone	591-78-6	<0.0100	
Chlorodibromomethane	124-48-1	<0.0010	
1,2-Dibromoethane	106-93-4	<0.0010	
Chlorobenzene	108-90-7	<0.0010	
Ethylbenzene	100-41-4	<0.0010	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547039**
Analysis Date:	7/22/2011	Analyst:	209
Instrument ID:	VOCMS21		
Sample Numbers:	L527447-01, -02		

Method Blank

Analyte	CAS	PQL	Qualifiers
m&p-Xylene	1330-20-7	<0.0030	
o-Xylene	1330-20-7	<0.0030	
Styrene	100-42-5	<0.0010	
Bromoform	75-25-2	<0.0010	
Isopropylbenzene	98-82-8	<0.0010	
1,1,2,2-Tetrachloroethane	79-34-5	<0.0010	
1,3-Dichlorobenzene	541-73-1	<0.0010	
1,4-Dichlorobenzene	106-46-7	<0.0010	
1,2-Dichlorobenzene	95-50-1	<0.0010	
1,2-Dibromo-3-Chloropropane	96-12-8	<0.0050	
1,2,4-Trichlorobenzene	120-82-1	<0.0010	
1,2,3-Trichlorobenzene	87-61-6	<0.0010	
Methyl Acetate	79-20-9	<0.0200	R
Cyclohexane	110-82-7	<0.0010	R
Methyl Cyclohexane	108-87-2	<0.0010	R

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Method Blank

Analyte	CAS	PQL	Qualifiers
Dichlorodifluoromethane	75-71-8	<0.0050	
Chloromethane	74-87-3	<0.0025	
Vinyl chloride	75-01-4	<0.0010	
Bromomethane	74-83-9	<0.0050	
Chloroethane	75-00-3	<0.0050	
Trichlorofluoromethane	75-69-4	<0.0050	
1,1-Dichloroethene	75-35-4	<0.0010	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	<0.0010	
Acetone	67-64-1	<0.0500	
Carbon disulfide	75-15-0	<0.0010	
Methylene Chloride	75-09-2	<0.0050	
trans-1,2-Dichloroethene	156-60-5	<0.0010	
Methyl tert-butyl ether	1634-04-4	<0.0010	
1,1-Dichloroethane	75-34-3	<0.0010	
cis-1,2-Dichloroethene	156-59-2	<0.0010	
2-Butanone (MEK)	78-93-3	<0.0100	
Bromochloromethane	74-97-5	<0.0010	
Chloroform	67-66-3	<0.0050	
1,1,1-Trichloroethane	71-55-6	<0.0010	
Carbon tetrachloride	56-23-5	<0.0010	
Benzene	71-43-2	<0.0010	
1,2-Dichloroethane	107-06-2	<0.0010	
Trichloroethene	79-01-6	<0.0010	
1,2-Dichloropropane	78-87-5	<0.0010	
Bromodichloromethane	75-27-4	<0.0010	
cis-1,3-Dichloropropene	10061-01-5	<0.0010	
4-Methyl-2-pentanone (MIBK)	108-10-1	<0.0100	
Toluene	108-88-3	<0.0050	
trans-1,3-Dichloropropene	10061-02-6	<0.0010	
1,1,2-Trichloroethane	79-00-5	<0.0010	
Tetrachloroethene	127-18-4	<0.0010	
2-Hexanone	591-78-6	<0.0100	
Chlorodibromomethane	124-48-1	<0.0010	
1,2-Dibromoethane	106-93-4	<0.0010	
Chlorobenzene	108-90-7	<0.0010	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547303**
Analysis Date:	7/25/2011	Analyst:	74
Instrument ID:	VOCMS20		
Sample Numbers:	L527447-03		

Method Blank

Analyte	CAS	PQL	Qualifiers
Ethylbenzene	100-41-4	<0.0010	
m&p-Xylene	1330-20-7	<0.0030	
o-Xylene	1330-20-7	<0.0030	
Styrene	100-42-5	<0.0010	
Bromoform	75-25-2	<0.0010	
Isopropylbenzene	98-82-8	<0.0010	
1,1,2,2-Tetrachloroethane	79-34-5	<0.0010	
1,3-Dichlorobenzene	541-73-1	<0.0010	
1,4-Dichlorobenzene	106-46-7	<0.0010	
1,2-Dichlorobenzene	95-50-1	<0.0010	
1,2-Dibromo-3-Chloropropane	96-12-8	<0.0050	
1,2,4-Trichlorobenzene	120-82-1	<0.0010	
1,2,3-Trichlorobenzene	87-61-6	<0.0010	
Methyl Acetate	79-20-9	<0.0200	R
Cyclohexane	110-82-7	<0.0010	R
Methyl Cyclohexane	108-87-2	~~<0.0010~~ .00086	R

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 8/2/2011
Instrument ID: VOCMS11
Sample Numbers: L527447-02, -01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG548755
Analyst: 209

Method Blank

Analyte	CAS	PQL	Qualifiers
Methylene Chloride	75-09-2	<0.0050	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Methylene Chloride	0.0250	0.0261	104	64 - 125	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Methylene Chloride	0.0250	0.0288	115	64 - 125	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0263	105	39 - 189	
Chloromethane	0.0250	0.0256	102	45 - 152	
Vinyl chloride	0.0250	0.0243	97.1	55 - 153	
Bromomethane	0.0250	0.0392	157 J	45 - 175	
Chloroethane	0.0250	0.0276	111	49 - 155	
Trichlorofluoromethane	0.0250	0.0314	125 J	54 - 156	
1,1-Dichloroethene	0.0250	0.0323	129	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0370	148	51 - 149	
Acetone	0.125	0.143	115	48 - 134	
Carbon disulfide	0.0250	0.0269	108	41 - 148	
trans-1,2-Dichloroethene	0.0250	0.0238	95.4	67 - 129	
Methyl tert-butyl ether	0.0250	0.0266	106	51 - 142	
1,1-Dichloroethane	0.0250	0.0271	108	67 - 133	
cis-1,2-Dichloroethene	0.0250	0.0257	103	72 - 128	
2-Butanone (MEK)	0.125	0.129	103	53 - 132	
Bromochloromethane	0.0250	0.0271	108	75 - 128	
Chloroform	0.0250	0.0282	113	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0277	111	67 - 137	
Carbon tetrachloride	0.0250	0.0281	112	64 - 141	
Benzene	0.0250	0.0268	107	67 - 126	
1,2-Dichloroethane	0.0250	0.0271	109	63 - 137	
Trichloroethene	0.0250	0.0225	89.9	74 - 126	
1,2-Dichloropropane	0.0250	0.0241	96.5	74 - 122	
Bromodichloromethane	0.0250	0.0268	107	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0262	105	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.131	104	60 - 142	
Toluene	0.0250	0.0249	99.5	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0236	94.3	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0241	96.4	79 - 123	
Tetrachloroethene	0.0250	0.0218	87.2	67 - 135	
2-Hexanone	0.125	0.122	97.4	56 - 147	
Chlorodibromomethane	0.0250	0.0248	99.3	73 - 138	
1,2-Dibromoethane	0.0250	0.0225	90.1	75 - 126	
Chlorobenzene	0.0250	0.0222	88.7	77 - 125	
Ethylbenzene	0.0250	0.0231	92.6	76 - 129	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
m&p-Xylene	0.0500	0.0467	93.3	74 - 128	
o-Xylene	0.0250	0.0226	90.6	78 - 128	
Styrene	0.0250	0.0153	61.0	78 - 130	J4
Bromoform	0.0250	0.0221	88.4	60 - 139	
Isopropylbenzene	0.0250	0.0251	101	73 - 132	
1,1,2,2-Tetrachloroethane	0.0250	0.0247	98.9	72 - 128	
1,3-Dichlorobenzene	0.0250	0.0244	97.6	73 - 131	
1,4-Dichlorobenzene	0.0250	0.0236	94.3	70 - 121	
1,2-Dichlorobenzene	0.0250	0.0227	90.9	75 - 122	
1,2-Dibromo-3-Chloropropane	0.0250	0.0225	90.2	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0208	83.0	65 - 137	
1,2,3-Trichlorobenzene	0.0250	0.0214	85.8	63 - 138	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0260	104	39 - 189	
Chloromethane	0.0250	0.0254	101	45 - 152	
Vinyl chloride	0.0250	0.0236	94.3	55 - 153	
Bromomethane	0.0250	0.0367	147 J	45 - 175	
Chloroethane	0.0250	0.0259	103	49 - 155	
Trichlorofluoromethane	0.0250	0.0301	120 J	54 - 156	
1,1-Dichloroethene	0.0250	0.0308	123	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0350	140	51 - 149	
Acetone	0.125	0.140	112	48 - 134	
Carbon disulfide	0.0250	0.0257	103	41 - 148	
trans-1,2-Dichloroethene	0.0250	0.0239	95.6	67 - 129	
Methyl tert-butyl ether	0.0250	0.0264	106	51 - 142	
1,1-Dichloroethane	0.0250	0.0270	108	67 - 133	
cis-1,2-Dichloroethene	0.0250	0.0254	102	72 - 128	
2-Butanone (MEK)	0.125	0.130	104	53 - 132	
Bromochloromethane	0.0250	0.0261	104	75 - 128	
Chloroform	0.0250	0.0280	112	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0275	110	67 - 137	
Carbon tetrachloride	0.0250	0.0280	112	64 - 141	
Benzene	0.0250	0.0264	106	67 - 126	
1,2-Dichloroethane	0.0250	0.0269	108	63 - 137	
Trichloroethene	0.0250	0.0227	91.0	74 - 126	
1,2-Dichloropropane	0.0250	0.0245	97.9	74 - 122	
Bromodichloromethane	0.0250	0.0258	103	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0255	102	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.130	104	60 - 142	
Toluene	0.0250	0.0245	97.9	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0235	94.2	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0253	101	79 - 123	
Tetrachloroethene	0.0250	0.0235	94.2	67 - 135	
2-Hexanone	0.125	0.130	104	56 - 147	
Chlorodibromomethane	0.0250	0.0260	104	73 - 138	
1,2-Dibromoethane	0.0250	0.0244	97.5	75 - 126	
Chlorobenzene	0.0250	0.0234	93.7	77 - 125	
Ethylbenzene	0.0250	0.0245	98.0	76 - 129	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547039**
Analysis Date:	7/22/2011	Analyst:	209
Instrument ID:	VOCMS21		
Sample Numbers:	L527447-01, -02		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
m&p-Xylene	0.0500	0.0492	98.4	74 - 128	
o-Xylene	0.0250	0.0242	97.0	78 - 128	
Styrene	0.0250	0.0161	64.3	78 - 130	J4
Bromoform	0.0250	0.0229	91.8	60 - 139	
Isopropylbenzene	0.0250	0.0268	107	73 - 132	
1,1,2,2-Tetrachloroethane	0.0250	0.0253	101	72 - 128	
1,3-Dichlorobenzene	0.0250	0.0255	102	73 - 131	
1,4-Dichlorobenzene	0.0250	0.0238	95.2	70 - 121	
1,2-Dichlorobenzene	0.0250	0.0233	93.0	75 - 122	
1,2-Dibromo-3-Chloropropane	0.0250	0.0227	91.0	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0207	82.9	65 - 137	
1,2,3-Trichlorobenzene	0.0250	0.0215	85.8	63 - 138	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0231	92.5	39 - 189	
Chloromethane	0.0250	0.0201	80.5	45 - 152	
Vinyl chloride	0.0250	0.0178	71.3	55 - 153	
Bromomethane	0.0250	0.0209	83.4	45 - 175	
Chloroethane	0.0250	0.0208	83.3	49 - 155	
Trichlorofluoromethane	0.0250	0.0223	89.1	54 - 156	
1,1-Dichloroethene	0.0250	0.0242	96.7	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0252	101	51 - 149	
Acetone	0.125	0.142	114	48 - 134	
Carbon disulfide	0.0250	0.0217	86.8	41 - 148	
Methylene Chloride	0.0250	0.0254	101	64 - 125	
trans-1,2-Dichloroethene	0.0250	0.0240	96.1	67 - 129	
Methyl tert-butyl ether	0.0250	0.0249	99.4	51 - 142	
1,1-Dichloroethane	0.0250	0.0262	105	67 - 133	
cis-1,2-Dichloroethene	0.0250	0.0248	99.1	72 - 128	
2-Butanone (MEK)	0.125	0.116	92.8	53 - 132	
Bromochloromethane	0.0250	0.0246	98.3	75 - 128	
Chloroform	0.0250	0.0247	98.7	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0248	99.1	67 - 137	
Carbon tetrachloride	0.0250	0.0259	104	64 - 141	
Benzene	0.0250	0.0242	96.6	67 - 126	
1,2-Dichloroethane	0.0250	0.0254	101	63 - 137	
Trichloroethene	0.0250	0.0222	88.7	74 - 126	
1,2-Dichloropropane	0.0250	0.0227	90.8	74 - 122	
Bromodichloromethane	0.0250	0.0218	87.0	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0230	92.2	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.119	95.1	60 - 142	
Toluene	0.0250	0.0215	85.8	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0215	85.9	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0206	82.4	79 - 123	
Tetrachloroethene	0.0250	0.0212	84.9	67 - 135	
2-Hexanone	0.125	0.110	88.3	56 - 147	
Chlorodibromomethane	0.0250	0.0208	83.3	73 - 138	
1,2-Dibromoethane	0.0250	0.0204	81.6	75 - 126	
Chlorobenzene	0.0250	0.0208	83.1	77 - 125	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547303**
Analysis Date:	7/25/2011	Analyst:	74
Instrument ID:	VOCMS20		
Sample Numbers:	L527447-03		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ethylbenzene	0.0250	0.0219	87.7	76 - 129	
m&p-Xylene	0.0500	0.0438	87.6	74 - 128	
o-Xylene	0.0250	0.0209	83.6	78 - 128	
Styrene	0.0250	0.0165	65.8	78 - 130	J4
Bromoform	0.0250	0.0200	80.1	60 - 139	
Isopropylbenzene	0.0250	0.0235	94.2	73 - 132	
1,1,2,2-Tetrachloroethane	0.0250	0.0198	79.3	72 - 128	
1,3-Dichlorobenzene	0.0250	0.0213	85.3	73 - 131	
1,4-Dichlorobenzene	0.0250	0.0207	82.9	70 - 121	
1,2-Dichlorobenzene	0.0250	0.0206	82.2	75 - 122	
1,2-Dibromo-3-Chloropropane	0.0250	0.0189	75.5	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0215	85.9	65 - 137	
1,2,3-Trichlorobenzene	0.0250	0.0209	83.7	63 - 138	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0229	91.7	39 - 189	
Chloromethane	0.0250	0.0197	78.7	45 - 152	
Vinyl chloride	0.0250	0.0170	68.1	55 - 153	
Bromomethane	0.0250	0.0202	80.8	45 - 175	
Chloroethane	0.0250	0.0201	80.3	49 - 155	
Trichlorofluoromethane	0.0250	0.0219	87.7	54 - 156	
1,1-Dichloroethene	0.0250	0.0242	96.9	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0246	98.5	51 - 149	
Acetone	0.125	0.151	120	48 - 134	
Carbon disulfide	0.0250	0.0211	84.5	41 - 148	
Methylene Chloride	0.0250	0.0254	102	64 - 125	
trans-1,2-Dichloroethene	0.0250	0.0254	102	67 - 129	
Methyl tert-butyl ether	0.0250	0.0260	104	51 - 142	
1,1-Dichloroethane	0.0250	0.0273	109	67 - 133	
cis-1,2-Dichloroethene	0.0250	0.0255	102	72 - 128	
2-Butanone (MEK)	0.125	0.119	95.6	53 - 132	
Bromochloromethane	0.0250	0.0256	102	75 - 128	
Chloroform	0.0250	0.0254	102	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0264	106	67 - 137	
Carbon tetrachloride	0.0250	0.0265	106	64 - 141	
Benzene	0.0250	0.0249	99.7	67 - 126	
1,2-Dichloroethane	0.0250	0.0261	105	63 - 137	
Trichloroethene	0.0250	0.0242	96.9	74 - 126	
1,2-Dichloropropane	0.0250	0.0243	97.2	74 - 122	
Bromodichloromethane	0.0250	0.0236	94.3	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0249	99.7	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.133	107	60 - 142	
Toluene	0.0250	0.0232	93.0	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0240	96.0	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0233	93.2	79 - 123	
Tetrachloroethene	0.0250	0.0229	91.5	67 - 135	
2-Hexanone	0.125	0.125	100	56 - 147	
Chlorodibromomethane	0.0250	0.0227	90.7	73 - 138	
1,2-Dibromoethane	0.0250	0.0228	91.2	75 - 126	
Chlorobenzene	0.0250	0.0239	95.7	77 - 125	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547303**
Analysis Date:	7/25/2011	Analyst:	74
Instrument ID:	VOCMS20		
Sample Numbers:	L527447-03		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ethylbenzene	0.0250	0.0248	99.1	76 - 129	
m&p-Xylene	0.0500	0.0503	101	74 - 128	
o-Xylene	0.0250	0.0237	95.0	78 - 128	
Styrene	0.0250	0.0186	74.5	78 - 130	J4
Bromoform	0.0250	0.0236	94.3	60 - 139	
Isopropylbenzene	0.0250	0.0269	108	73 - 132	
1,1,2,2-Tetrachloroethane	0.0250	0.0227	90.7	72 - 128	
1,3-Dichlorobenzene	0.0250	0.0235	93.9	73 - 131	
1,4-Dichlorobenzene	0.0250	0.0223	89.1	70 - 121	
1,2-Dichlorobenzene	0.0250	0.0222	88.7	75 - 122	
1,2-Dibromo-3-Chloropropane	0.0250	0.0192	76.8	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0229	91.7	65 - 137	
1,2,3-Trichlorobenzene	0.0250	0.0229	91.6	63 - 138	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Matrix Spike/Matrix Spike Duplicate

L527447-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Dichlorodifluoromethane	0.0250	0.0000	0.0286	114	0.0282	113	0-200		1.4	26	
Chloromethane	0.0250	0.0000	0.0290	116	0.0284	114	10-174		1.8	28	
Vinyl chloride	0.0250	0.0004	0.0279	110	0.0272	107	0-179		2.5	26	
Bromomethane	0.0250	0.0000	0.0418	167	0.0396	158	0-191	J	5.5	35	
Chloroethane	0.0250	0.0000	0.0290	116	0.0288	115	4-176		0.7	27	
Trichlorofluoromethane	0.0250	0.0000	0.0323	129	0.0314	126	10-177	J	2.7	24	
1,1-Dichloroethene	0.0250	0.0000	0.0337	135	0.0328	131	10-162		2.7	23	
1,1,2-Trichloro-1,2,2-	0.0250	0.0000	0.0372	149	0.0357	143	14-168		4.3	24	
Acetone	0.125	0.0000	0.119	95.1	0.119	95.2	25-157		0.1	26	
Carbon disulfide	0.0250	0.0000	0.0354	142	0.0342	137	10-166		3.5	25	
trans-1,2-Dichloroethene	0.0250	0.0000	0.0281	112	0.0272	109	11-160		3.3	23	
Methyl tert-butyl ether	0.0250	0.0017	0.0301	113	0.0301	113	24-167		0.2	22	
1,1-Dichloroethane	0.0250	0.0000	0.0280	112	0.0279	112	30-159		0.3	21	
cis-1,2-Dichloroethene	0.0250	0.0230	0.0520	116	0.0518	115	29-156		0.3	22	
2-Butanone (MEK)	0.125	0.0000	0.131	105	0.127	102	32-151		2.7	26	
Bromochloromethane	0.0250	0.0000	0.0282	113	0.0277	111	36-154		2.1	21	
Chloroform	0.0250	0.0000	0.0284	113	0.0281	112	37-147		0.9	21	
1,1,1-Trichloroethane	0.0250	0.0000	0.0287	115	0.0286	114	31-161		0.5	23	
Carbon tetrachloride	0.0250	0.0000	0.0295	118	0.0292	117	22-168		0.7	24	
Benzene	0.0250	0.0000	0.0284	114	0.0282	113	16-158		0.8	21	
1,2-Dichloroethane	0.0250	0.0000	0.0274	110	0.0279	112	29-167		1.9	21	
Trichloroethene	0.0250	0.0015	0.0264	99.5	0.0258	97.2	18-163		2.3	21	
1,2-Dichloropropane	0.0250	0.0000	0.0253	101	0.0252	101	39-148		0.3	20	
Bromodichloromethane	0.0250	0.0000	0.0265	106	0.0261	104	45-147		1.6	20	
cis-1,3-Dichloropropene	0.0250	0.0000	0.0258	103	0.0244	97.6	35-148		5.4	21	
4-Methyl-2-pentanone	0.125	0.0000	0.134	107	0.133	107	40-160		0.2	28	
Toluene	0.0250	0.0000	0.0251	101	0.0248	99.1	22-152		1.5	22	
trans-1,3-Dichloropropene	0.0250	0.0000	0.0238	95.1	0.0236	94.3	33-153		0.8	22	
1,1,2-Trichloroethane	0.0250	0.0000	0.0254	101	0.0247	98.9	46-145		2.6	20	
Tetrachloroethene	0.0250	0.0000	0.0245	97.9	0.0234	93.4	13-157		4.6	24	
2-Hexanone	0.125	0.0000	0.129	103	0.124	99.1	41-155		4.0	28	
Chlorodibromomethane	0.0250	0.0000	0.0261	104	0.0250	100	48-151		4.3	21	
1,2-Dibromoethane	0.0250	0.0000	0.0246	98.5	0.0236	94.5	41-149		4.2	21	
Chlorobenzene	0.0250	0.0000	0.0240	96.1	0.0231	92.2	33-148		4.2	22	
Ethylbenzene	0.0250	0.0000	0.0252	101	0.0240	96.2	29-150		4.8	24	
m&p-Xylene	0.0500	0.0000	0.0505	101	0.0485	97.1	24-151		3.9	23	
o-Xylene	0.0250	0.0000	0.0246	98.5	0.0231	92.6	32-151		6.2	23	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547039**
Analysis Date:	7/22/2011	Analyst:	209
Instrument ID:	VOCMS21		
Sample Numbers:	L527447-01, -02		

Matrix Spike/Matrix Spike Duplicate
L527447-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Styrene	0.0250	0.0000	0.0163	65.1	0.0155	61.9	38-149		4.9	23	
Bromoform	0.0250	0.0000	0.0230	91.9	0.0223	89.2	38-152		3.0	20	
Isopropylbenzene	0.0250	0.0000	0.0274	109	0.0258	103	35-147		5.8	25	
1,1,2,2-Tetrachloroethane	0.0250	0.0000	0.0263	105	0.0247	98.9	49-149		6.1	22	
1,3-Dichlorobenzene	0.0250	0.0000	0.0259	103	0.0239	95.5	32-148		8.0	24	
1,4-Dichlorobenzene	0.0250	0.0000	0.0244	97.7	0.0246	98.5	32-136		0.8	23	
1,2-Dichlorobenzene	0.0250	0.0000	0.0238	95.2	0.0238	95.4	40-139		0.2	23	
1,2-Dibromo-3-	0.0250	0.0000	0.0240	95.8	0.0236	94.5	37-148		1.4	27	
1,2,4-Trichlorobenzene	0.0250	0.0000	0.0230	91.9	0.0219	87.5	27-142		5.0	30	
1,2,3-Trichlorobenzene	0.0250	0.0000	0.0231	92.2	0.0217	87.0	32-143		5.8	33	

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SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dichlorodifluoromethane	0.0250	0.0263	105	0.0260	104	39-189		0.9	24	
Chloromethane	0.0250	0.0256	102	0.0254	101	45-152		0.8	20	
Vinyl chloride	0.0250	0.0243	97.1	0.0236	94.3	55-153		2.9	20	
Bromomethane	0.0250	0.0392	157	0.0367	147	45-175	J	6.6	20	
Chloroethane	0.0250	0.0276	111	0.0259	103	49-155		6.7	20	
Trichlorofluoromethane	0.0250	0.0314	125	0.0301	120	54-156	J	4.1	20	
1,1-Dichloroethene	0.0250	0.0323	129	0.0308	123	60-130		4.9	20	
1,1,2-Trichloro-1,2,2-	0.0250	0.0370	148	0.0350	140	51-149		5.4	20	
Acetone	0.125	0.143	115	0.140	112	48-134		2.5	20	
Carbon disulfide	0.0250	0.0269	108	0.0257	103	41-148		4.8	20	
trans-1,2-Dichloroethene	0.0250	0.0238	95.4	0.0239	95.6	67-129		0.2	20	
Methyl tert-butyl ether	0.0250	0.0266	106	0.0264	106	51-142		0.6	20	
1,1-Dichloroethane	0.0250	0.0271	108	0.0270	108	67-133		0.2	20	
cis-1,2-Dichloroethene	0.0250	0.0257	103	0.0254	102	72-128		1.1	20	
2-Butanone (MEK)	0.125	0.129	103	0.130	104	53-132		0.5	20	
Bromochloromethane	0.0250	0.0271	108	0.0261	104	75-128		3.8	20	
Chloroform	0.0250	0.0282	113	0.0280	112	66-126		0.9	20	
1,1,1-Trichloroethane	0.0250	0.0277	111	0.0275	110	67-137		0.7	20	
Carbon tetrachloride	0.0250	0.0281	112	0.0280	112	64-141		0.3	20	
Benzene	0.0250	0.0268	107	0.0264	106	67-126		1.3	20	
1,2-Dichloroethane	0.0250	0.0271	109	0.0269	108	63-137		0.9	20	
Trichloroethene	0.0250	0.0225	89.9	0.0227	91.0	74-126		1.2	20	
1,2-Dichloropropane	0.0250	0.0241	96.5	0.0245	97.9	74-122		1.4	20	
Bromodichloromethane	0.0250	0.0268	107	0.0258	103	68-133		3.7	20	
cis-1,3-Dichloropropene	0.0250	0.0262	105	0.0255	102	73-131		2.7	20	
4-Methyl-2-pentanone (MIBK)	0.125	0.131	104	0.130	104	60-142		0.6	20	
Toluene	0.0250	0.0249	99.5	0.0245	97.9	72-122		1.5	20	
trans-1,3-Dichloropropene	0.0250	0.0236	94.3	0.0235	94.2	66-137		0.1	20	
1,1,2-Trichloroethane	0.0250	0.0241	96.4	0.0253	101	79-123		4.7	20	
Tetrachloroethene	0.0250	0.0218	87.2	0.0235	94.2	67-135		7.7	20	
2-Hexanone	0.125	0.122	97.4	0.130	104	56-147		6.3	20	
Chlorodibromomethane	0.0250	0.0248	99.3	0.0260	104	73-138		4.6	20	
1,2-Dibromoethane	0.0250	0.0225	90.1	0.0244	97.5	75-126		7.9	20	
Chlorobenzene	0.0250	0.0222	88.7	0.0234	93.7	77-125		5.6	20	
Ethylbenzene	0.0250	0.0231	92.6	0.0245	98.0	76-129		5.7	20	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/22/2011
Instrument ID: VOCMS21
Sample Numbers: L527447-01, -02

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547039
Analyst: 209

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
m&p-Xylene	0.0500	0.0467	93.3	0.0492	98.4	74-128		5.3	20	
o-Xylene	0.0250	0.0226	90.6	0.0242	97.0	78-128		6.8	20	
Styrene	0.0250	0.0153	61.0	0.0161	64.3	78-130	J4	5.3	20	
Bromoform	0.0250	0.0221	88.4	0.0229	91.8	60-139		3.7	20	
Isopropylbenzene	0.0250	0.0251	101	0.0268	107	73-132		6.5	20	
1,1,2,2-Tetrachloroethane	0.0250	0.0247	98.9	0.0253	101	72-128		2.3	20	
1,3-Dichlorobenzene	0.0250	0.0244	97.6	0.0255	102	73-131		4.5	20	
1,4-Dichlorobenzene	0.0250	0.0236	94.3	0.0238	95.2	70-121		1.0	20	
1,2-Dichlorobenzene	0.0250	0.0227	90.9	0.0233	93.0	75-122		2.2	20	
1,2-Dibromo-3-Chloropropane	0.0250	0.0225	90.2	0.0227	91.0	55-134		0.9	20	
1,2,4-Trichlorobenzene	0.0250	0.0208	83.0	0.0207	82.9	65-137		0.2	20	
1,2,3-Trichlorobenzene	0.0250	0.0214	85.8	0.0215	85.8	63-138		0.0	20	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Matrix Spike/Matrix Spike Duplicate

L527671-12

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Dichlorodifluoromethane	0.0250	0.0000	0.0229	91.5	0.0246	98.4	0-200		7.3	26	
Chloromethane	0.0250	0.0000	0.0175	70.0	0.0194	77.6	10-174		10	28	
Vinyl chloride	0.0250	0.0000	0.0155	61.9	0.0175	70.0	0-179		12	26	
Bromomethane	0.0250	0.0000	0.0180	71.9	0.0197	78.9	0-191		9.3	35	
Chloroethane	0.0250	0.0000	0.0180	72.0	0.0197	78.7	4-176		8.8	27	
Trichlorofluoromethane	0.0250	0.0000	0.0197	78.8	0.0221	88.4	10-177		11	24	
1,1-Dichloroethene	0.0250	0.0000	0.0225	89.8	0.0266	106	10-162		17	23	
1,1,2-Trichloro-1,2,2-	0.0250	0.0000	0.0219	87.4	0.0298	119	14-168		31	24	J3
Acetone	0.125	0.0000	0.118	94.4	0.126	101	25-157		6.4	26	
Carbon disulfide	0.0250	0.0000	0.0216	86.6	0.0260	104	10-166		18	25	
Methylene Chloride	0.0250	0.0000	0.0230	92.1	0.0248	99.3	23-151		7.5	21	
trans-1,2-Dichloroethene	0.0250	0.0000	0.0227	90.8	0.0248	99.2	11-160		8.8	23	
Methyl tert-butyl ether	0.0250	0.0000	0.0239	95.8	0.0260	104	24-167		8.4	22	
1,1-Dichloroethane	0.0250	0.0000	0.0239	95.7	0.0255	102	30-159		6.5	21	
cis-1,2-Dichloroethene	0.0250	0.0000	0.0224	89.8	0.0243	97.3	29-156		8.0	22	
2-Butanone (MEK)	0.125	0.0000	0.109	87.5	0.119	95.0	32-151		8.1	26	
Bromochloromethane	0.0250	0.0000	0.0239	95.6	0.0255	102	36-154		6.7	21	
Chloroform	0.0250	0.0000	0.0227	90.7	0.0243	97.1	37-147		6.8	21	
1,1,1-Trichloroethane	0.0250	0.0000	0.0231	92.3	0.0251	100	31-161		8.3	23	
Carbon tetrachloride	0.0250	0.0000	0.0237	94.9	0.0257	103	22-168		7.8	24	
Benzene	0.0250	0.0000	0.0223	89.2	0.0239	95.7	16-158		7.0	21	
1,2-Dichloroethane	0.0250	0.0000	0.0247	99.0	0.0265	106	29-167		6.8	21	
Trichloroethene	0.0250	0.0000	0.0211	84.2	0.0226	90.3	18-163		7.0	21	
1,2-Dichloropropane	0.0250	0.0000	0.0211	84.4	0.0230	92.2	39-148		8.8	20	
Bromodichloromethane	0.0250	0.0000	0.0213	85.2	0.0227	91.0	45-147		6.6	20	
cis-1,3-Dichloropropene	0.0250	0.0000	0.0198	79.3	0.0220	87.8	35-148		10	21	
4-Methyl-2-pentanone	0.125	0.0000	0.124	99.0	0.133	106	40-160		6.9	28	
Toluene	0.0250	0.0000	0.0205	81.8	0.0223	89.1	22-152		8.5	22	
trans-1,3-Dichloropropene	0.0250	0.0000	0.0212	84.7	0.0225	90.1	33-153		6.1	22	
1,1,2-Trichloroethane	0.0250	0.0000	0.0207	82.6	0.0226	90.4	46-145		9.0	20	
Tetrachloroethene	0.0250	0.0000	0.0204	81.7	0.0222	88.7	13-157		8.2	24	
2-Hexanone	0.125	0.0000	0.109	86.9	0.122	97.5	41-155		11	28	
Chlorodibromomethane	0.0250	0.0000	0.0200	80.1	0.0218	87.1	48-151		8.3	21	
1,2-Dibromoethane	0.0250	0.0000	0.0207	82.7	0.0223	89.4	41-149		7.8	21	
Chlorobenzene	0.0250	0.0000	0.0201	80.4	0.0221	88.4	33-148		9.5	22	
Ethylbenzene	0.0250	0.0000	0.0207	83.0	0.0230	92.1	29-150		11	24	
m&p-Xylene	0.0500	0.0000	0.0425	85.0	0.0461	92.2	24-151		8.2	23	

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Est. 1970

Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Matrix Spike/Matrix Spike Duplicate

L527671-12

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
o-Xylene	0.0250	0.0000	0.0199	79.8	0.0222	88.8	32-151		11	23	
Styrene	0.0250	0.0000	0.0156	62.5	0.0165	65.8	38-149		5.3	23	
Bromoform	0.0250	0.0000	0.0208	83.2	0.0224	89.4	38-152		7.2	20	
Isopropylbenzene	0.0250	0.0000	0.0226	90.5	0.0247	99.0	35-147		9.0	25	
1,1,2,2-Tetrachloroethane	0.0250	0.0000	0.0210	84.2	0.0227	90.9	49-149		7.7	22	
1,3-Dichlorobenzene	0.0250	0.0000	0.0211	84.5	0.0224	89.4	32-148		5.7	24	
1,4-Dichlorobenzene	0.0250	0.0000	0.0194	77.7	0.0209	83.5	32-136		7.2	23	
1,2-Dichlorobenzene	0.0250	0.0000	0.0191	76.5	0.0208	83.1	40-139		8.2	23	
1,2-Dibromo-3-	0.0250	0.0000	0.0182	72.7	0.0196	78.5	37-148		7.7	27	
1,2,4-Trichlorobenzene	0.0250	0.0000	0.0207	82.7	0.0231	92.3	27-142		11	30	
1,2,3-Trichlorobenzene	0.0250	0.0000	0.0191	76.2	0.0222	89.0	32-143		15	33	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 7/25/2011
Instrument ID: VOCMS20
Sample Numbers: L527447-03

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG547303
Analyst: 74

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dichlorodifluoromethane	0.0250	0.0231	92.5	0.0229	91.7	39-189		0.9	24	
Chloromethane	0.0250	0.0201	80.5	0.0197	78.7	45-152		2.2	20	
Vinyl chloride	0.0250	0.0178	71.3	0.0170	68.1	55-153		4.6	20	
Bromomethane	0.0250	0.0209	83.4	0.0202	80.8	45-175		3.2	20	
Chloroethane	0.0250	0.0208	83.3	0.0201	80.3	49-155		3.7	20	
Trichlorofluoromethane	0.0250	0.0223	89.1	0.0219	87.7	54-156		1.7	20	
1,1-Dichloroethene	0.0250	0.0242	96.7	0.0242	96.9	60-130		0.2	20	
1,1,2-Trichloro-1,2,2-	0.0250	0.0252	101	0.0246	98.5	51-149		2.2	20	
Acetone	0.125	0.142	114	0.151	120	48-134		5.6	20	
Carbon disulfide	0.0250	0.0217	86.8	0.0211	84.5	41-148		2.7	20	
Methylene Chloride	0.0250	0.0254	101	0.0254	102	64-125		0.3	20	
trans-1,2-Dichloroethene	0.0250	0.0240	96.1	0.0254	102	67-129		5.7	20	
Methyl tert-butyl ether	0.0250	0.0249	99.4	0.0260	104	51-142		4.5	20	
1,1-Dichloroethane	0.0250	0.0262	105	0.0273	109	67-133		4.1	20	
cis-1,2-Dichloroethene	0.0250	0.0248	99.1	0.0255	102	72-128		3.0	20	
2-Butanone (MEK)	0.125	0.116	92.8	0.119	95.6	53-132		2.9	20	
Bromochloromethane	0.0250	0.0246	98.3	0.0256	102	75-128		4.1	20	
Chloroform	0.0250	0.0247	98.7	0.0254	102	66-126		3.0	20	
1,1,1-Trichloroethane	0.0250	0.0248	99.1	0.0264	106	67-137		6.3	20	
Carbon tetrachloride	0.0250	0.0259	104	0.0265	106	64-141		2.1	20	
Benzene	0.0250	0.0242	96.6	0.0249	99.7	67-126		3.1	20	
1,2-Dichloroethane	0.0250	0.0254	101	0.0261	105	63-137		3.0	20	
Trichloroethene	0.0250	0.0222	88.7	0.0242	96.9	74-126		8.8	20	
1,2-Dichloropropane	0.0250	0.0227	90.8	0.0243	97.2	74-122		6.8	20	
Bromodichloromethane	0.0250	0.0218	87.0	0.0236	94.3	68-133		8.0	20	
cis-1,3-Dichloropropene	0.0250	0.0230	92.2	0.0249	99.7	73-131		7.9	20	
4-Methyl-2-pentanone (MIBK)	0.125	0.119	95.1	0.133	107	60-142		12	20	
Toluene	0.0250	0.0215	85.8	0.0232	93.0	72-122		8.0	20	
trans-1,3-Dichloropropene	0.0250	0.0215	85.9	0.0240	96.0	66-137		11	20	
1,1,2-Trichloroethane	0.0250	0.0206	82.4	0.0233	93.2	79-123		12	20	
Tetrachloroethene	0.0250	0.0212	84.9	0.0229	91.5	67-135		7.4	20	
2-Hexanone	0.125	0.110	88.3	0.125	100	56-147		13	20	
Chlorodibromomethane	0.0250	0.0208	83.3	0.0227	90.7	73-138		8.6	20	
1,2-Dibromoethane	0.0250	0.0204	81.6	0.0228	91.2	75-126		11	20	
Chlorobenzene	0.0250	0.0208	83.1	0.0239	95.7	77-125		14	20	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	8612403	Matrix:	Water - mg/L
Project:	Roblin Steel	EPA ID:	TN00003
Collection Date:	7/21/2011	**Analytic Batch:**	**WG547303**
Analysis Date:	7/25/2011	Analyst:	74
Instrument ID:	VOCMS20		
Sample Numbers:	L527447-03		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Ethylbenzene	0.0250	0.0219	87.7	0.0248	99.1	76-129		12	20	
m&p-Xylene	0.0500	0.0438	87.6	0.0503	101	74-128		14	20	
o-Xylene	0.0250	0.0209	83.6	0.0237	95.0	78-128		13	20	
Styrene	0.0250	0.0165	65.8	0.0186	74.5	78-130	J4	12	20	
Bromoform	0.0250	0.0200	80.1	0.0236	94.3	60-139		16	20	
Isopropylbenzene	0.0250	0.0235	94.2	0.0269	108	73-132		13	20	
1,1,2,2-Tetrachloroethane	0.0250	0.0198	79.3	0.0227	90.7	72-128		13	20	
1,3-Dichlorobenzene	0.0250	0.0213	85.3	0.0235	93.9	73-131		9.6	20	
1,4-Dichlorobenzene	0.0250	0.0207	82.9	0.0223	89.1	70-121		7.2	20	
1,2-Dichlorobenzene	0.0250	0.0206	82.2	0.0222	88.7	75-122		7.5	20	
1,2-Dibromo-3-Chloropropane	0.0250	0.0189	75.5	0.0192	76.8	55-134		1.7	20	
1,2,4-Trichlorobenzene	0.0250	0.0215	85.9	0.0229	91.7	65-137		6.5	20	
1,2,3-Trichlorobenzene	0.0250	0.0209	83.7	0.0229	91.6	63-138		9.0	20	

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Quality Control Summary
SDG: L527447
Stearns and Wheler

Test: Volatile Organic Compounds by Method 8260B
Project No: 8612403
Project: Roblin Steel
Collection Date: 7/21/2011
Analysis Date: 8/2/2011
Instrument ID: VOCMS11
Sample Numbers: L527447-02, -01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG548755
Analyst: 209

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Methylene Chloride	0.0250	0.0261	104	0.0288	115	64-125		9.9	20	

Matrix Spike/Matrix Spike Duplicate

L527447-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Methylene Chloride	0.0250	0.0000	0.0258	103	0.0271	108	23-151		4.8	21	

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Injection Log

Instrument ID : VOCMS21 Released By : Ben Wilson Run ID : 072211
Computer Name : VOCCOMPAI Date Released : 7/25/2011 6:33:49 AM Signature : _____

	#	File ID	Sample ID	Method	WG	Product	Matrix	Account #	Dil.	Mult.	Injected
Detach	58	0722_55	L527539-53	V821F30K	WG547039	V8260	GW	ARCAHCO	1	1	07/23/11 0644
	59	0722_56	L527539-54	V821F30K	WG547039	V8260	GW	ARCAHCO	1	1	07/23/11 0705
	60	0722_57	L527539-56	V821F30K	WG547039	V8260	GW	ARCAHCO	1	1	07/23/11 0726
Detach	61	0722_58	L527529-01	V821F30K	WG547039	V624TTO	WW	RESSOLPAL	1	1	07/23/11 0747

pH < 2 unless marked green, then pH = 7

Sample Run Raw Data Package

Instrument ID : VOCMS20 Instrument # : 1

Computer : VOCCOMPAH Run ID : 072511

Data Released By: Jimmy Moshopoulos 07/25/2011
Date

Analyst Comments: ***APPROVED***
By Chris Harbin at 12:58 pm, Jul 26, 2011

pH < 2 unless marked green, then pH = 7

Environmental Science Corporation
12065 Lebanon Rd., Mt. Juliet, TN 37122

Injection Log

Instrument ID : VOCMS11 | Released By : Heidi Eng | Run ID : 080211
Computer Name : VOCCOMPR | Date Released : 8/5/2011 9:49:27 AM | Signature : _____

	#	File ID	Sample ID	Method	WG	Product	Matrix	Account #	Dil.	Mult.	Injected
	1	0802_01	INSTBLK	V811G20K					1	1	08/2/11 1635
	2	0802_01T	INSTBLK VMS							1	08/2/11 1635
	3	0802_02	ICV VMS 25 PPB 11G29466	V811G20K					1	1	08/2/11 1655
	4	0802_03	LCS	V811G20K	WG548755		GW		1	1	08/2/11 1733
	5	0802_04	LCSD	V811G20K	WG548755		GW		1	1	08/2/11 1753
	6	0802_05	MS	V811G20K	WG548755		GW		1	1	08/2/11 1824
	7	0802_06	MSD	V811G20K	WG548755		GW		1	1	08/2/11 1844
	8	0802_07	1 PPB 11G29466	V811G20K					1	1	08/2/11 1903
	9	0802_08	INSTBLK	V811G20K					1	1	08/2/11 1923
	10	0802_09	BLANK	V811G20K	WG548755		GW		1	1	08/2/11 1943
Final	11	0802_10	L527447-01	V811G20K	WG548755	V8260TCL	GW	STEARNSANY	1	1	08/2/11 2029
Final	12	0802_11	L527447-02	V811G20K	WG548755	V8260TCL	GW	STEARNSANY	1	1	08/2/11 2049
Final	13	0802_12	L527534-05	V811G20K	WG548755	V8260	GW	LAWHON	1	1	08/2/11 2108
Final	14	0802_13	L527539-43	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2128
Final	15	0802_14	L527539-44	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2148
Final	16	0802_15	L527539-45	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2208
Final	17	0802_16	L527539-46	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2228
Final	18	0802_17	L527539-47	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2248
Final	19	0802_18	L527539-48	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2307
Final	20	0802_19	L527539-49	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2327
Final	21	0802_20	L527539-50	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/2/11 2347
Final	22	0802_21	L527539-51	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/3/11 0007
Final	23	0802_22	L527539-52	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/3/11 0026
Final	24	0802_23	L527539-54	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/3/11 0046
Final	25	0802_24	L527539-56	V811G20K	WG548755	V8260	GW	ARCAHCO	1	1	08/3/11 0106
Final	26	0802_25	L527539-53	V811G20K	WG548755				1	1	08/3/11 0126

pH<2
Cl=0

Environmental Science Corporation
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Initial Calibration Summary

Instrument ID	: VOCMS20	Method	: V820G19K
Released By	: Ben Baker	Review Method	: 8260B
Released On	: 7/19/2011 8:20:34 PM	Review Protocol	: SW846

C = 1 --> Average Response, C = 0 --> Linear Regression, C = 3 --> Quadratic

Parameter	.50	1	2	5	10	25	40	75	100	1a	2.5a	5a	7.5a	10a	12a	15a	17a	20a	200	AvgRF	%RSD	COD	CUR
SEC-BUTYLBENZENE	19.18	18.11	18.98	21.47	18.52	22.66	20.84	18.99	18.32										17.58	19.47	8.43	0.084	1
1,3-DICHLOROBENZENE	9.929 999	10.13	9.88	10.99	9.27	10.33	9.49	9.01	8.6										8.08	9.57	9.01	0.09	1
P-ISOPROPYLTOLUENE	15.85	14.35	15.29	16.62	16.06	19.61	18.24	17.22	16.29										15.88	16.76	10.03	0.1	1
8260-1,4-DICHLOROBENZENE-D4																							
1,4-DICHLOROBENZENE	4.039	3.624	3.608	3.463	3.092	3.579	3.384	3.154	3.05										3.029	3.402	9.56	0.096	1
1,2,3-TRIMETHYLBENZENE	5.614	5.345	5.745	5.972	5.34	6.544	5.327	5.889	5.663										5.809	5.825	5.62	0.066	1
1,2-DICHLOROBENZENE	3.36	3.092	3.216	3.107	2.757	3.221	3.121	3.044	2.99										2.976	3.088	5.32	0.053	1
N-BUTYLBENZENE	5.184	4.717	5.166	5.356	4.649	6.053	5.674	5.326	5.063										5.107	5.229	7.93	0.079	1
1,2-DIBROMO-3-CHLOROPROPANE				0.225	0.212	0.255	0.263	0.276	0.291										0.305	0.261	12.89	0.129	1
1,2,4-TRICHLOROBENZENE	1.834	1.853	1.919	1.853	1.742	1.944	2.257	2.231	2.338										2.386	2.036	11.78	0.118	1
HEXACHLORO-1,3-BUTADIENE	1.196	1.427	1.392	1.313	1.168	1.031	1.432	1.374	1.39										1.428	1.315	10.46	0.105	1
NAPHTHALENE			3.31	3.263	3.034	3.738	4.305	4.459	4.7										4.748	3.945	17.53	0.996	0
1,2,3-TRICHLOROBENZENE	1.844	1.764	1.788	1.71	1.57	1.862	2.037	1.974	2.008										2.026	1.838	9.05	0.091	1
1-METHYLNAPHTHALENE					1.299	1.405	2.031	2.224	2.441										2.424	1.971	25.53	0.995	0
2-METHYLNAPHTHALENE					1.235	1.362	1.89	1.935	2.124										1.965	1.752	20.87	0.995	0
AP9-PENTAFLUOROBENZENE																							
ETHANOL										0.006	0.006	0.008	0.007	0.007	0.008	0.008	0.008	0.008		0.007	10.6	0.106	1
BROMOETHANE										0.206	0.558	0.64	0.594	0.616	0.65	0.665	0.639	0.658		0.582	24.97	0.996	0
METHYL ACETATE										0.412	0.41	0.443	0.422	0.432	0.448	0.45	0.445	0.444		0.434	3.63	0.036	1
ACETONITRILE										0.062	0.068	0.072	0.07	0.072	0.076	0.074	0.073	0.073		0.071	5.76	0.058	1
ALLYL CHLORIDE										0.351	0.345	0.393	0.385	0.386	0.412	0.402	0.398	0.408		0.387	6.15	0.062	1
TERT-BUTYL ALCOHOL										0.078	0.125	0.145	0.127	0.138	0.141	0.148	0.144	0.143		0.132	16.59	0.998	0
CHLOROPRENE										1.031	1.04	1.169	1.128	1.162	1.217	1.207	1.204	1.219		1.153	6.32	0.063	1
ETHYL TERT-BUTYL ETHER										1.84	1.781	1.957	1.993	2.004	2.159	2.105	2.143	2.12		2.011	6.7	0.067	1
PROPIONITRILE										0.067	0.074	0.081	0.078	0.08	0.084	0.083	0.083	0.08		0.079	6.78	0.068	1

Environmental Science Corporation
12065 Lebanon Rd., Mt. Juliet, TN 37122

Initial Calibration Summary

Instrument ID	: VOCMS20	Method	: V820G19K
Released By	: Ben Baker	Review Method	: 8260B
Released On	: 7/19/2011 8:20:34 PM	Review Protocol	: SW846

C = 1 --> Average Response, C = 0 --> Linear Regression, C = 3 --> Quadratic

Parameter	.50	1	2	5	10	25	40	75	100	1a	2.5a	5a	7.5a	10a	12a	15a	17a	20a	200	AvgRF	%RSD	COD	CUR
ETHYL ACETATE										0.367	0.476	0.531	0.525	0.54	0.569	0.566	0.557	0.564		0.523	12.57	0.126	1
METHACRYLONITRILE										0.218	0.242	0.262	0.249	0.252	0.258	0.253	0.247	0.244		0.247	5.13	0.051	1
CYCLOHEXANE										1.04	1.144	1.269	1.208	1.197	1.272	1.284	1.249	1.276		1.215	6.64	0.066	1
TERT-BUTYL FORMATE										0.31	0.321	0.346	0.375	0.375	0.386	0.36	0.368	0.393		0.359	7.96	0.08	1
ISOBUTANOL										0.017	0.022	0.022	0.021	0.023	0.025	0.023	0.023	0.023		0.022	10.54	0.105	1
T-AMYL ALCOHOL																				0	0	0	1
TERT-AMYL METHYL ETHER										1.431	1.613	1.699	1.701	1.708	1.785	1.721	1.73	1.716		1.678	6.12	0.061	1
AP9-1,4-DIFLUOROBENZENE																							
N-BUTANOL										0.005	0.008	0.009	0.009	0.01	0.01	0.01	0.01	0.01		0.009	18.8	0.999	0
METHYL CYCLOHEXANE										0.725	1.006	0.91	0.861	0.838	0.852	0.816	0.819	0.816		0.849	9.02	0.09	1
2-NITROPROPANE										0.085	0.091	0.1	0.094	0.098	0.101	0.1	0.1	0.1		0.097	5.89	0.059	1
METHYL METHACRYLATE										0.298	0.342	0.364	0.357	0.367	0.374	0.375	0.37	0.362		0.357	8.82	0.088	1
1,4-DIOXANE										0.002	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004		0.004	19.87	0.999	0
N-OCTANE										0.364	0.515	0.423	0.419	0.428	0.443	0.441	0.448	0.438		0.435	8.96	0.09	1
3,3-DIMETHYL-1-BUTANOL										0.004	0.021	0.024	0.025	0.026	0.027	0.028	0.026	0.027		0.023	31.78	0.999	0
AP9-2-BROMO-1-CHLOROPROPANE																							
ETHYL METHACRYLATE										2.999	3.576	3.836	3.913	4.06	4.314	4.341	4.18	4.22		3.938	10.92	0.109	1
CIS-1,4-DICHLORO-2-BUTENE										0.802	0.999	1.108	1.046	1.132	1.152	1.138	1.106	1.089		1.063	10.25	0.102	1
CYCLOHEXANONE										0.35	0.406	0.43	0.4	0.434	0.482	0.488	0.458	0.467		0.435	10.27	0.103	1
PENTACHLOROETHANE										2.041	1.986	2.137	2.472	2.486	1.839	1.808	1.65	2.141		2.062	13.83	0.138	1
HEXACHLOROETHANE										2.556	2.793	3.067	2.964	3.103	3.196	3.136	3.067	3.085		2.996	6.73	0.067	1
AP9-1,4-DICHLOROBENZENE-D4																							

Environmental Science Corporation
12065 Lebanon Rd., Mt. Juliet, TN 37122

Initial Calibration Summary

Instrument ID	: VOCMS21	Method	: V821F30K
Released By	: Amy Green	Review Method	: 8260B
Released On	: 7/1/2011 3:29:03 PM	Review Protocol	: SW846

C = 1 --> Average Response, C = 0 --> Linear Regression, C = 3 --> Quadratic

Parameter	.5	1	2	5.0	10	25	40	75	100	200	1a	2.5a	5a	7.5a	10a	12a	15a	17a	20a	AvgRF	%RSD	COD	CUR
sec-Butylbenzene		10.53	15.55	13.93	12.94	13.45	14.61	14.83	15.03	15.4										14.03	11.26	0.113	1
1,3-DICHLOROBENZENE	5.111	5.779	7.506	6.219	5.579	5.627	6.139	6.083	6.06	6.222										6.033	10.4	0.104	1
p-Isopropyltoluene		8.05	12.24	11.21	11.06	11.46	12.76	13.15	13.2	13.97										11.9	14.75	0.147	1
S260-1,4-DICHLOROBENZENE-D4																							
1,4-DICHLOROBENZENE	1.77	1.836	2.403	1.8	1.675	1.892	1.777	1.807	1.801	1.891										1.845	11.16	0.112	1
1,2,3-TRIMETHYLBENZENE	2.514	2.725	3.668	3.01	2.889	3.032	3.216	3.346	3.367	3.621										3.139	11.95	0.119	1
1,2-DICHLOROBENZENE	1.236	1.468	2.02	1.504	1.469	1.542	1.616	1.645	1.642	1.745										1.591	12.83	0.128	1
n-Butylbenzene		2.14	3.046	2.667	2.687	2.904	3.128	3.214	3.214	3.359										2.929	12.95	0.13	1
1,2-Dibromo-3-chloropropane			0.105	0.101	0.095	0.107	0.129	0.131												0.111	13.51	0.135	1
1,2,4-Trichlorobenzene		0.729	1.027	0.836	0.825	0.896	0.973	1.019	1.034	1.065										0.934	12.55	0.125	1
HEXACHLORO-1,3-BUTADIENE	0.436	0.474	0.587	0.489	0.478	0.477	0.512	0.528	0.534	0.525										0.504	8.35	0.083	1
Naphthalene	1.37	1.462	2.213	1.968	2.111	2.487	2.841	2.884	3.112	3.208										2.365	27.58	0.994	0
1,2,3-Trichlorobenzene	0.64	0.694	1.006	0.823	0.807	0.852	0.905	0.944	0.967	0.98										0.862	14.29	0.143	1
1-Methylnaphthalene			0.773	0.72	0.858	1.161	1.381	1.459	1.62	1.689										1.208	32.01	0.991	0
2-Methylnaphthalene	0.436	0.457	0.779	0.744	0.893	1.102	1.26	1 302	1.43	1.433										0.984	38.31	0.993	0
AP3-PENTAFLUOROBENZENE																							
ETHANOL											0.006	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	7.53	0.075	1
Bromoethane											0.432	0.433	0.423	0.425	0.43	0.429	0.422	0.431	0.417	0.427	1.28	0.013	1
Methyl Acetate											0.303	0.31	0.309	0.313	0.322	0.325	0.325	0.324	0.318	0.317	2.56	0.026	1
ACETONITRILE											0.047	0.053	0.053	0.054	0.057	0.056	0.056	0.057	0.056	0.054	5.99	0.06	1
ALLYL CHLORIDE											0.214	0.215	0.207	0.216	0.219	0.22	0.216	0.219	0.216	0.216	1.84	0.018	1
tert-BUTYL ALCOHOL											0.032	0.033	0.038	0.04	0.041	0.04	0.041	0.04	0.04	0.038	8.24	0.082	1
chloroprene											0.61	0.673	0.683	0.713	0.74	0.753	0.748	0.758	0.752	0.714	7.02	0.07	1
ETHYL TERT-BUTYL ETHER											0.943	1.037	1.07	1.082	1.098	1.127	1.15	1.128	1.157	1.088	6.15	0.062	1
PROPIONITRILE											0.052	0.055	0.054	0.056	0.058	0.059	0.06	0.059	0.058	0.057	4.85	0.049	1

APPENDIX E

DATA USABILITY REPORTING

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Roblin Steel
Project # 8612403
ESC Lab Sciences SDG#L527447
August 15, 2011
Sampling date: 07/21/2011

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Stearns and Wheler, project located at Roblin Steel, project # 8612403, SDG#L527447, submitted to Vali-Data of WNY, LLC on August 5, 2011. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocol and USEPA National Functional Guidelines. The laboratory performed the analysis using USEPA method 8260 (Volatile Organics).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where cited below in Continuing Calibration. Data are qualified below in Surrogate Spike Recoveries, Method Blank, Laboratory Control Samples, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met except the individual RRF's of some target analytes were not recorded on the Initial Calibration Summary sheets. Updated pages are attached.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met except no relinquished by time and signature were recorded. This does not affect the usability of the data.

HOLDING TIMES
All holding times were met except the pH was not recorded. Updated pages are attached.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met except the %Rec of 4-Bromofluorobenzene was outside ASP QC limits, low in MW-35, FD and TRIPBLANK. Associated target analytes should be qualified as estimated.

The %Rec of Dibromofluoromethane was outside laboratory QC limits, high, in MW-35 and FD. The %Rec of Toluene-d_8 was outside ASP QC limits, high, in sample, FD. The %Rec of 4-Bromofluorobenzene as outside ASP QC limits, high in WG548755MSD, WG548755Blank, MW-35 for batch WG548755. Detected associated target analytes should be qualified as estimated.

ASP surrogate 1,2-Dichloroethane-d_4 was not used but Dibromofluoromethane and a,a,a-Trichlorotoluene were used instead.

METHOD BLANK
All criteria were met except Methylcyclohexane was detected in Blank WG-547303 and INSTBLK at 00:29 on 7/23/11 above the MDL, below the MRL and should be recorded as estimated. ESC Lab Sciences has reviewed the data and does not believe this target analyte to be present. No supporting data has been included in the package.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met the %Rec of Styrene was outside QC limits, low, in the LCS/SD performed as part of batch WG547039 and WG547303. Styrene should be considered estimated in associated samples.

MS/MSD
All criteria were met except the %RPD of 1,1,2-Trichloro-1,2,2-trifluoroethane was outside QC limits in WG547303MS/MSD.

COMPOUND QUANTITATION
All criteria were met except Methylene Chloride was detected above the reporting limit in TRIPBLANK run on 7/23/11. ESC Lab Sciences has reviewed the data and does not believe this

target analyte to be present. No supporting data has been included in the package.

INITIAL CALIBRATION

All criteria were met except linear regression was used on 2-Butanone and trans-1,3-Dichloropropene in the initial calibration method # V820G19K.M. Linear regression was used on Chloromethane, Styrene, Bromoform and trans-1,3-Dichloropropene in the initial calibration method # V821F30K.M.

The COD's for these target analytes were within ASP QC limits, so no further action is required.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromomethane and Trichlorofluoromethane were outside ASP outer QC limits in V821F30K.M. These target analytes should be qualified as estimated in the associated blanks, spikes and samples.

Linear regression was used on 2-Butanone and trans-1,3-Dichloropropene in the continuing calibration method # V820G19K.M. Linear regression was used on Chloromethane, Styrene, Bromoform and trans-1,3-Dichloropropene in the continuing calibration method # V821F30K.M.

The COD's for these target analytes were within ASP QC limits, so no further action is required.

Cyclohexane, Methyl acetate and Methylcyclohexane were not monitored in the continuing calibrations. The data for these target analytes should be considered unusable, per the National Functional Guidelines.

GC/MS PERFORMANCE CHECK

All criteria were met.

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