NPDES Pretreatment Compliance Sampling Inspection Report

Matco Tools
160 Chautauqua Avenue
Lakewood, New York

March 18-19, 2021

Report Prepared by:

ROBERT MORRELL
Digitally signed by ROBERT MORRELL
Date: 2021.05.13 09:02:51 -04'00'

Robert Morrell, Geologist
Monitoring Operations Section

Date: _____

Report Approved by:

PHILIP COCUZZA
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Date: 2021.05.13 06:08:06 -04'00'

Philip Cocuzza, Chief
Monitoring Operations Section

Date: _____

1.0 OBJECTIVE

On March 18-19, 2021, at the request of the Water Compliance Branch, the United States Environmental Protection Agency (USEPA) conducted a National Pollutant Discharge Elimination System (NPDES) Pretreatment Compliance Sampling Inspection (CSI) at Matco Tools in Lakewood, New York. The objective of the CSI was to gather information necessary to determine compliance with the requirements and limitations of 40 CFR Part 433 (Metal Finishing Point Source Category).

2.0 KEY PARTICIPANTS

Listed below are key inspection participants and contact information, grouped by organization.

U.S. Environmental Protection Agency
Robert Morrell, Geologist, Lead Inspector
Morrell.robert@epa.gov, 732-906-6804
Neal Johansen, Physical Scientist
Johansen.neal@epa.gov, 732-321-6691

Matco Tools
Kurt Eckberg, Maintenance Supervisor
Kurt.eckberg@matcotools.com, 716-763-8525, Ext 2241

3.0 FACILITY DESCRIPTION

3.1 General Information

Matco Tools is located at 160 Chautauqua Avenue in Lakewood, New York. The facility, which has been operating since 1980, is a manufacturer of professional tool boxes for auto mechanics. The company is categorized as Standard Industrial Classification (SIC) Code 3499 (Fabricated Metal Products). Matco Tools employs approximately 100 people. There are two 10-hour shifts that operate from 4:00 am until 12:00 midnight, six days per week.

3.2 Process Information

Incoming steel (sheet and coiled) is sent to the shearing department, where the steel is cut to size. The sheared steel sheets are then sent to the case cell, where the drawers and tool box shells are formed by punching, stamping, and spot welding. The drawers and tool box shells are then placed on moving overhead hangers. The parts on the hangers are conveyed to an aqueous cleaning line, where the cleaning, zirconium coating, and sealing operations occur. This improves the powder coating performance and assists in corrosion protection of the steel substrate. The cleaning and degreasing begin with a first stage hot water rinse, followed by a second stage alkaline cleaner. The third and fourth stages consist of city water rinses. In the

fifth stage, a zirconium coating is applied. In the sixth stage, the parts are sprayed with a sealer solution. The seventh and final stage consists of a reverse osmosis water rinse.

The parts then pass through the dry-off oven. After cooling, the parts are conveyed to the powder coat booth, where the powder coating is applied. The parts then pass through the curing oven, which is maintained at 350°F. The heat causes the powder coating to fuse into a smooth finish. After cooling, the parts are removed from the hangers for assembly. Casters, locks, handles, and other accessories are attached to the tool boxes during the assembly process. The accessories are purchased from outside suppliers. The final product is inspected, packaged, and shipped to the distributor.

The water used in the aqueous cleaning line is provided by the Jamestown Municipal Authority. The water is treated in a reverse osmosis unit for the final stage rinse. The first stage hot water rinse and the second stage alkaline cleaner are collected and reused. The fifth stage zirconium coating and the sixth stage sealer solution are also collected and reused continually. Wastewaters from the third stage, fourth stage, and seventh stage rinses are collected in a tank, which overflows to a wastewater trench. The wastewater from the trench is discharged to the South and Central Chautauqua Lake Sewer District in Celeron, New York. The alkaline cleaning solution, zirconium coating, and sealer solution are replaced approximately once per year and are discharged to the South and Central Chautauqua Lake Sewer District. Average process wastewater flow is approximately 13,000 gallons per day.

3.3 Facility Self-Monitoring Information

Wastewater samples are collected twice per year at the wastewater trench by facility personnel. Samples are analyzed for the parameters listed in 40 CFR Section 433.15 and the local POTW parameters (oil and grease, iron, mercury, and pH). Grab samples of the final discharge are collected for four consecutive days. Samples are analyzed by Eurofins TestAmerica of Amherst, New York.

4.0 EPA SAMPLING/INSPECTION ACTIVITIES

4.1 Sampling Activities

An automatic composite sampler was set up at the effluent location to collect an aliquot of the effluent wastewater every 15 minutes for 24 hours. After 24 hours, the automatic composite sampler was disassembled and a 500-ml plastic jar was filled for the analysis of metals (cadmium, chromium, copper, lead, nickel, silver, zinc, iron, and mercury). A grab composite sample was also collected by filling one-fourth of the sample containers four times during the 24-hour survey. The grab composite sample was analyzed for TTO non-volatile organics and cyanide. Four grab samples for TTO volatile organics were also collected during the 24-hour survey. The four grab samples were composited in the EPA laboratory.

A fifth grab sample was also collected for oil and grease. Total residual chlorine and pH were analyzed in the field and recorded in the field notebook.

All sample containers, preservation techniques, and holding times were in accordance with U.S. EPA requirements specified in 40 CFR Part 136. All samples were placed in a cooler with wet ice and transported to the U.S. EPA Region 2 Laboratory in Edison, New Jersey.

Split samples were collected and given to the facility representative.

5.0 ANALYTICAL RESULTS

Matco Tools Pretreatment CSI
March 18-19, 2021

Parameter	Discharge to POTW	Daily Maximum Pretreatment Standards for Existing Sources – Metal Finishing Point Source Category (40 CFR Section 433.15)	Local Discharge Limit – Daily Maximum
Total Residual Chlorine (mg/l)	0.00	--	--
pH (su)	8.44	5.0 minimum	6.0 – 9.0
Cadmium (mg/l)	Not detected	0.69	0.4
Chromium (mg/l)	Not detected	2.77	1.0
Copper (mg/l)	0.0205	3.38	3.0
Lead (mg/l)	Not detected	0.69	0.5
Nickel (mg/l)	Not detected	3.98	1.0
Silver (mg/l)	Not detected	0.43	0.2
Zinc (mg/l)	Not detected	2.61	1.0
Iron (mg/l)	Not detected	--	5.0
Mercury (mg/l)	Not detected	--	0.2
Total Cyanide (mg/l)	Not detected	1.20	--
TTO (mg/l)	Not detected	2.13	--
Oil and Grease (mg/l)	Not detected	--	100

6.0 FINDINGS

6.1 Sampling Result Findings

Based on the EPA analytical results for the samples that were collected on March 18-19, 2021, Matco Tools was in compliance with the effluent guidelines and pretreatment standards for existing sources in the Metal Finishing Point Source Category (40 CFR Part 433). The facility was also in compliance with the non-approved pretreatment limits established by the South and Central Chautauqua Lake Sewer District.

7.0 ATTACHMENTS

Photograph (#1)
Laboratory Data Report
Chain of Custody / Field Data Form

Photo #1: View of effluent sampling location.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax

April 14, 2021

Philip Cocuzza
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: Matco Tools - 2103014

Enclosed are the results of analyses for samples received by the laboratory on 03/19/2021. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2103014 and contact the laboratory.

Sincerely,

James Ferretti
Acting Chief, LSASD/LB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Matco Tools - 2103014

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Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

None

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

U- The analyte was not detected at or above the Reporting Limit.
J- The identification of the analyte is acceptable; the reported value is an estimate.
K- The identification of the analyte is acceptable; the reported value may be biased high.
L- The identification of the analyte is acceptable; the reported value may be biased low.
NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

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Reporting Limit(s):

The Laboratory was able to achieve the standard laboratory reporting limits, where applicable, for each analyte requested except for the following analyte(s):

NVOA GCMS

The reporting level of 5.00 ug/L was raised to 10 ug/L for the following analyte(s):
Pentachlorophenol
for the following samples:
2103014-01

The reporting level of 5.00 ug/L was raised to 30 ug/L for the following analyte(s):
2,4-Dinitrophenol, 4,6-Dinitro-2-Methylphenol
for the following samples:
2103014-01

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent-Grab Composite	2103014-01	Aqueous	03/19/2021 07:42	03/19/2021 17:08
Composite Effluent-Grab # 1-4	2103014-06	Aqueous	03/22/2021 00:01	03/19/2021 17:08
Trip Blank	2103014-07	Aqueous	03/18/2021 10:22	03/19/2021 17:08
Effluent-Grab # 5	2103014-08	Aqueous	03/18/2021 11:06	03/19/2021 17:08
Effluent-24-Hr Composite	2103014-09	Aqueous	03/19/2021 07:45	03/19/2021 17:08

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

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SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
624.1 VOA EPA-NPDES	EPA 624.1 SOP C-89 Rev 3.6	NELAP	Aqueous
625.1 SVOA NPDES	EPA 625.1 SOP C-90 Rev 3.8	NELAP	Aqueous
Cyanide, Total	EPA 335.4 SOP C-28 Rev 2.7	NELAP	Aqueous
Mercury	EPA 245.1 SOP C-110 Rev 2.7	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.6	NELAP	Aqueous
Oil & Grease	EPA 1664A SOP C-126 Rev 1.6	NELAP	Aqueous

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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Effluent-Grab Composite				**Sample ID: 2103014-01**		
NVOA GCMS						
Acenaphthene	---	U	5.00	ug/L	B103041	
Acenaphthylene	---	U	5.00	ug/L	B103041	
Anthracene	---	U	5.00	ug/L	B103041	
Benzo(A)Anthracene	---	U	5.00	ug/L	B103041	
Benzo(A)Pyrene	---	U	5.00	ug/L	B103041	
Benzo(B)Fluoranthene	---	U	5.00	ug/L	B103041	
Benzo(G,H,I)Perylene	---	U	5.00	ug/L	B103041	
Benzo(K)Fluoranthene	---	U	5.00	ug/L	B103041	
Chrysene	---	U	5.00	ug/L	B103041	
Dibenzo(A,H)Anthracene	---	U	5.00	ug/L	B103041	
Fluoranthene	---	U	5.00	ug/L	B103041	
Fluorene	---	U	5.00	ug/L	B103041	
Indeno(1,2,3-Cd)Pyrene	---	U	5.00	ug/L	B103041	
Naphthalene	---	U	5.00	ug/L	B103041	
Phenanthrene	---	U	5.00	ug/L	B103041	
1,2,4-Trichlorobenzene	---	U L	5.00	ug/L	B103041	
2,4,6-Trichlorophenol	---	U L	5.00	ug/L	B103041	
2,4-Dichlorophenol	---	U L	5.00	ug/L	B103041	
2,4-Dimethylphenol	---	U L	5.00	ug/L	B103041	
2,4-Dinitrotoluene	---	U	5.00	ug/L	B103041	
2,6-Dinitrotoluene	---	U	5.00	ug/L	B103041	
2,4-Dinitrophenol	---	U	30.0	ug/L	B103041	
2-Chloronaphthalene	---	U	5.00	ug/L	B103041	
2-Chlorophenol	---	U L	5.00	ug/L	B103041	
2-Nitrophenol	---	U L	5.00	ug/L	B103041	
3,3'- Dichlorobenzidine	---	U L	5.00	ug/L	B103041	
4,6-Dinitro-2-Methylphenol	---	U	30.0	ug/L	B103041	
4-Bromophenyl-Phenylether	---	U	5.00	ug/L	B103041	
4-Chloro-3-Methylphenol	---	U L	5.00	ug/L	B103041	

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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Effluent-Grab Composite			**Sample ID: 2103014-01**			
NVOA GCMS						
4-Chlorophenyl-Phenylether	---	U	5.00	ug/L	B103041	
4-Nitrophenol	---	U	5.00	ug/L	B103041	
Bis(-2-Chloroethoxy)Methane	---	U L	5.00	ug/L	B103041	
Bis(2-Chloroethyl)Ether	---	U L	5.00	ug/L	B103041	
Bis(2-Chloroisopropyl)Ether	---	U L	5.00	ug/L	B103041	
Bis(2-Ethylhexyl)Phthalate	---	U	5.00	ug/L	B103041	
Butylbenzylphthalate	---	U	5.00	ug/L	B103041	
Azobenzene	---	U	5.00	ug/L	B103041	
Diethylphthalate	---	U	5.00	ug/L	B103041	
Dimethyl Phthalate	---	U	5.00	ug/L	B103041	
Di-N-Butyl Phthalate	---	U	5.00	ug/L	B103041	
Di-N-Octyl Phthalate	---	U	5.00	ug/L	B103041	
Hexachlorobenzene	---	U	5.00	ug/L	B103041	
Hexachlorobutadiene	---	U	5.00	ug/L	B103041	
Hexachlorocyclopentadiene	---	U	5.00	ug/L	B103041	
Hexachloroethane	---	U L	5.00	ug/L	B103041	
Isophorone	---	U L	5.00	ug/L	B103041	
Nitrobenzene	---	U L	5.00	ug/L	B103041	
N-Nitrosodimethylamine	---	U L	5.00	ug/L	B103041	
N-Nitroso-Di-N-Propylamine	---	U L	5.00	ug/L	B103041	
N-Nitrosodiphenylamine	---	U	5.00	ug/L	B103041	
Pentachlorophenol	---	U	10.0	ug/L	B103041	
Phenol	---	U L	5.00	ug/L	B103041	
Pyrene	---	U	5.00	ug/L	B103041	
Sanitary						
Cyanide, Total	---	U	10.0	ug/L	B103042	
Field ID: Composite Effluent-Grab # 1-4			**Sample ID: 2103014-06**			
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B103040	

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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Composite Effluent-Grab # 1-4					**Sample ID: 2103014-06**	
VOA GCMS						
Vinyl Chloride	---	U	5.00	ug/L	B103040	
Bromomethane	---	U	5.00	ug/L	B103040	
Chloroethane	---	U	5.00	ug/L	B103040	
Trichlorofluoromethane	---	U	5.00	ug/L	B103040	
1,1-Dichloroethene	---	U	5.00	ug/L	B103040	
Methylene Chloride	---	U	5.00	ug/L	B103040	
Acrylonitrile	---	U	5.00	ug/L	B103040	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B103040	
1,1-Dichloroethane	---	U	5.00	ug/L	B103040	
Chloroform	---	U	5.00	ug/L	B103040	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B103040	
Carbon Tetrachloride	---	U	5.00	ug/L	B103040	
1,2-Dichloroethane	---	U	5.00	ug/L	B103040	
Benzene	---	U	5.00	ug/L	B103040	
Trichloroethene	---	U	5.00	ug/L	B103040	
1,2-Dichloropropane	---	U	5.00	ug/L	B103040	
Bromodichloromethane	---	U	5.00	ug/L	B103040	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B103040	
Toluene	---	U	5.00	ug/L	B103040	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B103040	
1,1,2-Trichloroethane	---	U	5.00	ug/L	B103040	
Tetrachloroethene	---	U	5.00	ug/L	B103040	
Dibromochloromethane	---	U	5.00	ug/L	B103040	
Chlorobenzene	---	U	5.00	ug/L	B103040	
Ethylbenzene	---	U	5.00	ug/L	B103040	
Bromoform	---	U	5.00	ug/L	B103040	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B103040	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B103040	
1,4-Dichlorobenzene	---	U	5.00	ug/L	B103040	

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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Composite Effluent-Grab # 1-4				**Sample ID: 2103014-06**		
VOA GCMS						
1,2-Dichlorobenzene	---	U	5.00	ug/L	B103040	
Field ID: Trip Blank				**Sample ID: 2103014-07**		
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B103040	
Vinyl Chloride	---	U	5.00	ug/L	B103040	
Bromomethane	---	U	5.00	ug/L	B103040	
Chloroethane	---	U	5.00	ug/L	B103040	
Trichlorofluoromethane	---	U	5.00	ug/L	B103040	
1,1-Dichloroethene	---	U	5.00	ug/L	B103040	
Methylene Chloride	---	U	5.00	ug/L	B103040	
Acrylonitrile	---	U	5.00	ug/L	B103040	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B103040	
1,1-Dichloroethane	---	U	5.00	ug/L	B103040	
Chloroform	---	U	5.00	ug/L	B103040	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B103040	
Carbon Tetrachloride	---	U	5.00	ug/L	B103040	
1,2-Dichloroethane	---	U	5.00	ug/L	B103040	
Benzene	---	U	5.00	ug/L	B103040	
Trichloroethene	---	U	5.00	ug/L	B103040	
1,2-Dichloropropane	---	U	5.00	ug/L	B103040	
Bromodichloromethane	---	U	5.00	ug/L	B103040	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B103040	
Toluene	---	U	5.00	ug/L	B103040	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B103040	
1,1,2-Trichloroethane	---	U	5.00	ug/L	B103040	
Tetrachloroethene	---	U	5.00	ug/L	B103040	
Dibromochloromethane	---	U	5.00	ug/L	B103040	
Chlorobenzene	---	U	5.00	ug/L	B103040	
Ethylbenzene	---	U	5.00	ug/L	B103040	

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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Trip Blank			**Sample ID: 2103014-07**			
VOA GCMS						
Bromoform	---	U	5.00	ug/L	B103040	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B103040	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B103040	
1,4-Dichlorobenzene	---	U	5.00	ug/L	B103040	
1,2-Dichlorobenzene	---	U	5.00	ug/L	B103040	
Field ID: Effluent-Grab # 5			**Sample ID: 2103014-08**			
GC - Sanitary						
Oil & Grease	---	U	5.70	mg/L	B104012	
Field ID: Effluent-24-Hr Composite			**Sample ID: 2103014-09**			
Metals ICP						
Cadmium	---	U	3.00	ug/L	B103052	
Chromium	---	U	5.00	ug/L	B103052	
Copper	20.5		10.0	ug/L	B103052	
Lead	---	U	8.00	ug/L	B103052	
Nickel	---	U	20.0	ug/L	B103052	
Silver	---	U	5.00	ug/L	B103052	
Zinc	---	U	20.0	ug/L	B103052	
Mercury CVAA						
Mercury	---	U	0.050	ug/L	B104002	

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VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103040									
Blank (B103040-BLK1)									
Chloromethane	--- U	5.00	ug/L						
Vinyl Chloride	--- U	5.00	ug/L						
Bromomethane	--- U	5.00	ug/L						
Chloroethane	--- U	5.00	ug/L						
Trichlorofluoromethane	--- U	5.00	ug/L						
1,1-Dichloroethene	--- U	5.00	ug/L						
Methylene Chloride	--- U	5.00	ug/L						
Acrylonitrile	--- U	5.00	ug/L						
trans-1,2-Dichloroethene	--- U	5.00	ug/L						
1,1-Dichloroethane	--- U	5.00	ug/L						
Chloroform	--- U	5.00	ug/L						
1,1,1-Trichloroethane	--- U	5.00	ug/L						
Carbon Tetrachloride	--- U	5.00	ug/L						
1,2-Dichloroethane	--- U	5.00	ug/L						
Benzene	--- U	5.00	ug/L						
Trichloroethene	--- U	5.00	ug/L						
1,2-Dichloropropane	--- U	5.00	ug/L						
Bromodichloromethane	--- U	5.00	ug/L						
cis-1,3-Dichloropropene	--- U	5.00	ug/L						
Toluene	--- U	5.00	ug/L						
trans-1,3-Dichloropropene	--- U	5.00	ug/L						
1,1,2-Trichloroethane	--- U	5.00	ug/L						
Tetrachloroethene	--- U	5.00	ug/L						
Dibromochloromethane	--- U	5.00	ug/L						
Chlorobenzene	--- U	5.00	ug/L						
Ethylbenzene	--- U	5.00	ug/L						
Bromoform	--- U	5.00	ug/L						
1,1,2,2-Tetrachloroethane	--- U	5.00	ug/L						
1,3-Dichlorobenzene	--- U	5.00	ug/L						
1,4-Dichlorobenzene	--- U	5.00	ug/L						
1,2-Dichlorobenzene	--- U	5.00	ug/L						
Surrogate: 1,4-Difluorobenzene	*ND*		ug/L	*100.0*		*99.8*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*ND*		ug/L	*100.0*		*95.9*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*ND*		ug/L	*100.0*		*97.1*	*60-140*		

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VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103040									
LCS (B103040-BS1)									
Chloromethane	78.6		ug/L	50.00		157	19-205		
Vinyl Chloride	77.0		ug/L	50.00		154	5-195		
Bromomethane	70.7		ug/L	50.00		141	15-185		
Chloroethane	61.2		ug/L	50.00		122	40-160		
Trichlorofluoromethane	61.0		ug/L	50.00		122	50-150		
1,1-Dichloroethene	61.3		ug/L	50.00		123	50-150		
Methylene Chloride	53.3		ug/L	50.00		107	60-140		
Acrylonitrile	54.9		ug/L	50.00		110	70-129		
trans-1,2-Dichloroethene	56.8		ug/L	50.00		114	70-130		
1,1-Dichloroethane	54.9		ug/L	50.00		110	70-130		
Chloroform	53.3		ug/L	50.00		107	70-135		
1,1,1-Trichloroethane	53.3		ug/L	50.00		107	70-130		
Carbon Tetrachloride	54.2		ug/L	50.00		108	70-130		
1,2-Dichloroethane	50.4		ug/L	50.00		101	70-130		
Benzene	50.0		ug/L	50.00		99.9	65-135		
Trichloroethene	53.4		ug/L	50.00		107	65-135		
1,2-Dichloropropane	51.9		ug/L	50.00		104	35-165		
Bromodichloromethane	48.6		ug/L	50.00		97.2	65-135		
cis-1,3-Dichloropropene	46.9		ug/L	50.00		93.8	25-175		
Toluene	50.9		ug/L	50.00		102	70-130		
trans-1,3-Dichloropropene	52.1		ug/L	50.00		104	50-150		
1,1,2-Trichloroethane	52.3		ug/L	50.00		105	70-130		
Tetrachloroethene	54.2		ug/L	50.00		108	70-130		
Dibromochloromethane	52.0		ug/L	50.00		104	70-135		
Chlorobenzene	54.7		ug/L	50.00		109	65-135		
Ethylbenzene	52.3		ug/L	50.00		105	60-140		
Bromoform	49.9		ug/L	50.00		99.7	70-130		
1,1,2,2-Tetrachloroethane	48.8		ug/L	50.00		97.7	60-140		
1,3-Dichlorobenzene	53.8		ug/L	50.00		108	70-130		
1,4-Dichlorobenzene	54.3		ug/L	50.00		109	65-135		
1,2-Dichlorobenzene	53.8		ug/L	50.00		108	65-135		
Surrogate: 1,4-Difluorobenzene	*99.7*		ug/L	*100.0*		*99.7*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*97.8*		ug/L	*100.0*		*97.8*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*94.1*		ug/L	*100.0*		*94.1*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103040									
LCS Dup (B103040-BSD1)									
Chloromethane	85.0		ug/L	50.00		170	19-205	7.77	20
Vinyl Chloride	81.9		ug/L	50.00		164	5-195	6.22	20
Bromomethane	75.7		ug/L	50.00		151	15-185	6.86	20
Chloroethane	66.6		ug/L	50.00		133	40-160	8.58	20
Trichlorofluoromethane	67.0		ug/L	50.00		134	50-150	9.27	20
1,1-Dichloroethene	66.3		ug/L	50.00		133	50-150	7.79	20
Methylene Chloride	56.2		ug/L	50.00		112	60-140	5.22	20
Acrylonitrile	55.7		ug/L	50.00		111	70-129	1.45	20
trans-1,2-Dichloroethene	61.7		ug/L	50.00		123	70-130	8.17	20
1,1-Dichloroethane	58.7		ug/L	50.00		117	70-130	6.78	20
Chloroform	56.3		ug/L	50.00		113	70-135	5.46	20
1,1,1-Trichloroethane	56.8		ug/L	50.00		114	70-130	6.40	20
Carbon Tetrachloride	58.1		ug/L	50.00		116	70-130	6.91	20
1,2-Dichloroethane	52.7		ug/L	50.00		105	70-130	4.46	20
Benzene	51.8		ug/L	50.00		104	65-135	3.73	20
Trichloroethene	55.8		ug/L	50.00		112	65-135	4.29	20
1,2-Dichloropropane	54.1		ug/L	50.00		108	35-165	4.22	20
Bromodichloromethane	50.2		ug/L	50.00		100	65-135	3.22	20
cis-1,3-Dichloropropene	48.5		ug/L	50.00		97.0	25-175	3.29	20
Toluene	52.7		ug/L	50.00		105	70-130	3.59	20
trans-1,3-Dichloropropene	53.7		ug/L	50.00		107	50-150	3.10	20
1,1,2-Trichloroethane	53.7		ug/L	50.00		107	70-130	2.64	20
Tetrachloroethene	56.0		ug/L	50.00		112	70-130	3.28	20
Dibromochloromethane	54.0		ug/L	50.00		108	70-135	3.90	20
Chlorobenzene	56.6		ug/L	50.00		113	65-135	3.45	20
Ethylbenzene	54.5		ug/L	50.00		109	60-140	4.03	20
Bromoform	51.3		ug/L	50.00		103	70-130	2.87	20
1,1,2,2-Tetrachloroethane	51.1		ug/L	50.00		102	60-140	4.54	20
1,3-Dichlorobenzene	55.2		ug/L	50.00		110	70-130	2.48	20
1,4-Dichlorobenzene	56.5		ug/L	50.00		113	65-135	4.03	20
1,2-Dichlorobenzene	56.1		ug/L	50.00		112	65-135	4.31	20
Surrogate: 1,4-Difluorobenzene	*99.0*		ug/L	*100.0*		*99.0*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*98.7*		ug/L	*100.0*		*98.7*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*95.1*		ug/L	*100.0*		*95.1*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103040									
Matrix Spike (B103040-MS1)	**Source: 2103014-06**								
Chloromethane	45.7		ug/L	50.00	0.00	91.3	19-273		
Vinyl Chloride	48.5		ug/L	50.00	0.00	96.9	49-251		
Bromomethane	46.5		ug/L	50.00	0.00	93.0	21-242		
Chloroethane	46.7		ug/L	50.00	0.00	93.4	14-230		
Trichlorofluoromethane	49.2		ug/L	50.00	0.00	98.3	50-150		
1,1-Dichloroethene	51.5		ug/L	50.00	0.00	103	52-234		
Methylene Chloride	50.7		ug/L	50.00	0.00	101	69-221		
Acrylonitrile	49.5		ug/L	50.00	0.00	98.9	40-160		
trans-1,2-Dichloroethene	52.1		ug/L	50.00	0.00	104	54-156		
1,1-Dichloroethane	50.3		ug/L	50.00	0.00	101	59-155		
Chloroform	49.9		ug/L	50.00	0.00	99.7	51-138		
1,1,1-Trichloroethane	50.0		ug/L	50.00	0.00	100	52-162		
Carbon Tetrachloride	51.2		ug/L	50.00	0.00	102	70-140		
1,2-Dichloroethane	48.1		ug/L	50.00	0.00	96.3	49-155		
Benzene	49.2		ug/L	50.00	0.00	98.4	37-151		
Trichloroethene	49.8		ug/L	50.00	0.00	99.5	70-157		
1,2-Dichloropropane	48.8		ug/L	50.00	0.00	97.7	74-210		
Bromodichloromethane	48.2		ug/L	50.00	0.00	96.4	35-155		
cis-1,3-Dichloropropene	50.1		ug/L	50.00	0.00	100	80-227		
Toluene	49.1		ug/L	50.00	0.00	98.2	47-150		
trans-1,3-Dichloropropene	49.7		ug/L	50.00	0.00	99.5	17-183		
1,1,2-Trichloroethane	49.8		ug/L	50.00	0.00	99.6	52-150		
Tetrachloroethene	49.7		ug/L	50.00	0.00	99.3	64-148		
Dibromochloromethane	49.5		ug/L	50.00	0.00	99.0	53-149		
Chlorobenzene	50.4		ug/L	50.00	0.00	101	37-160		
Ethylbenzene	50.8		ug/L	50.00	0.00	102	37-162		
Bromoform	50.2		ug/L	50.00	0.00	100	45-169		
1,1,2,2-Tetrachloroethane	50.2		ug/L	50.00	0.00	100	46-157		
1,3-Dichlorobenzene	52.3		ug/L	50.00	0.00	105	59-156		
1,4-Dichlorobenzene	51.2		ug/L	50.00	0.00	102	18-190		
1,2-Dichlorobenzene	51.7		ug/L	50.00	0.00	103	18-190		
Surrogate: 1,4-Difluorobenzene	*99.0*		ug/L	*100.0*		*99.0*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*99.4*		ug/L	*100.0*		*99.4*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*99.7*		ug/L	*100.0*		*99.7*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103040									
Matrix Spike Dup (B103040-MSD1)	**Source: 2103014-06**								
Chloromethane	47.8		ug/L	50.00	0.00	95.5	19-273	4.47	28
Vinyl Chloride	47.5		ug/L	50.00	0.00	95.0	49-251	2.02	28
Bromomethane	49.3		ug/L	50.00	0.00	98.6	21-242	5.82	28
Chloroethane	49.3		ug/L	50.00	0.00	98.6	14-230	5.48	28
Trichlorofluoromethane	47.0		ug/L	50.00	0.00	94.0	50-150	4.53	28
1,1-Dichloroethene	51.2		ug/L	50.00	0.00	102	52-234	0.545	28
Methylene Chloride	52.5		ug/L	50.00	0.00	105	69-221	3.53	28
Acrylonitrile	51.5		ug/L	50.00	0.00	103	40-160	4.06	28
trans-1,2-Dichloroethene	53.4		ug/L	50.00	0.00	107	54-156	2.52	28
1,1-Dichloroethane	53.0		ug/L	50.00	0.00	106	59-155	5.19	28
Chloroform	52.6		ug/L	50.00	0.00	105	51-138	5.44	28
1,1,1-Trichloroethane	50.8		ug/L	50.00	0.00	102	52-162	1.43	28
Carbon Tetrachloride	50.5		ug/L	50.00	0.00	101	70-140	1.42	28
1,2-Dichloroethane	50.2		ug/L	50.00	0.00	100	49-155	4.17	28
Benzene	50.1		ug/L	50.00	0.00	100	37-151	1.73	28
Trichloroethene	49.2		ug/L	50.00	0.00	98.4	70-157	1.15	28
1,2-Dichloropropane	49.5		ug/L	50.00	0.00	99.0	74-210	1.34	28
Bromodichloromethane	49.2		ug/L	50.00	0.00	98.4	35-155	2.09	28
cis-1,3-Dichloropropene	51.7		ug/L	50.00	0.00	103	80-227	3.18	28
Toluene	50.1		ug/L	50.00	0.00	100	47-150	1.96	28
trans-1,3-Dichloropropene	51.2		ug/L	50.00	0.00	102	17-183	2.93	28
1,1,2-Trichloroethane	51.2		ug/L	50.00	0.00	102	52-150	2.79	28
Tetrachloroethene	48.4		ug/L	50.00	0.00	96.7	64-148	2.67	28
Dibromochloromethane	52.2		ug/L	50.00	0.00	104	53-149	5.39	28
Chlorobenzene	51.6		ug/L	50.00	0.00	103	37-160	2.34	28
Ethylbenzene	51.6		ug/L	50.00	0.00	103	37-162	1.52	28
Bromoform	52.0		ug/L	50.00	0.00	104	45-169	3.58	28
1,1,2,2-Tetrachloroethane	51.6		ug/L	50.00	0.00	103	46-157	2.77	28
1,3-Dichlorobenzene	53.6		ug/L	50.00	0.00	107	59-156	2.62	28
1,4-Dichlorobenzene	53.5		ug/L	50.00	0.00	107	18-190	4.41	28
1,2-Dichlorobenzene	53.2		ug/L	50.00	0.00	106	18-190	2.74	28
Surrogate: 1,4-Difluorobenzene	*99.3*		ug/L	*100.0*		*99.3*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*98.6*		ug/L	*100.0*		*98.6*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*98.9*		ug/L	*100.0*		*98.9*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
Blank (B103041-BLK1)									
Acenaphthene	--- U	5.00	ug/L						
Acenaphthylene	--- U	5.00	ug/L						
Anthracene	--- U	5.00	ug/L						
Benzo(A)Anthracene	--- U	5.00	ug/L						
Benzo(A)Pyrene	--- U	5.00	ug/L						
Benzo(B)Fluoranthene	--- U	5.00	ug/L						
Benzo(G,H,I)Perylene	--- U	5.00	ug/L						
Benzo(K)Fluoranthene	--- U	5.00	ug/L						
Chrysene	--- U	5.00	ug/L						
Dibenzo(A,H)Anthracene	--- U	5.00	ug/L						
Fluoranthene	--- U	5.00	ug/L						
Fluorene	--- U	5.00	ug/L						
Indeno(1,2,3-Cd)Pyrene	--- U	5.00	ug/L						
Naphthalene	--- U	5.00	ug/L						
Phenanthrene	--- U	5.00	ug/L						
1,2,4-Trichlorobenzene	--- U	5.00	ug/L						
2,4,6-Trichlorophenol	--- U	5.00	ug/L						
2,4-Dichlorophenol	--- U	5.00	ug/L						
2,4-Dimethylphenol	--- U	5.00	ug/L						
2,4-Dinitrotoluene	--- U	5.00	ug/L						
2,6-Dinitrotoluene	--- U	5.00	ug/L						
2,4-Dinitrophenol	--- U	5.00	ug/L						
2-Chloronaphthalene	--- U	5.00	ug/L						
2-Chlorophenol	--- U	5.00	ug/L						
2-Nitrophenol	--- U	5.00	ug/L						
3,3'- Dichlorobenzidine	--- U	5.00	ug/L						
4,6-Dinitro-2-Methylphenol	--- U	5.00	ug/L						
4-Bromophenyl-Phenylether	--- U	5.00	ug/L						
4-Chloro-3-Methylphenol	--- U	5.00	ug/L						
4-Chlorophenyl-Phenylether	--- U	5.00	ug/L						
4-Nitrophenol	--- U	5.00	ug/L						
Bis(-2-Chloroethoxy)Methane	--- U	5.00	ug/L						
Bis(2-Chloroethyl)Ether	--- U	5.00	ug/L						
Bis(2-Chloroisopropyl)Ether	--- U	5.00	ug/L						
Bis(2-Ethylhexyl)Phthalate	--- U	5.00	ug/L						

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
Blank (B103041-BLK1)									
Butylbenzylphthalate	--- U	5.00	ug/L						
Azobenzene	--- U	5.00	ug/L						
Diethylphthalate	--- U	5.00	ug/L						
Dimethyl Phthalate	--- U	5.00	ug/L						
Di-N-Butyl Phthalate	--- U	5.00	ug/L						
Di-N-Octyl Phthalate	--- U	5.00	ug/L						
Hexachlorobenzene	--- U	5.00	ug/L						
Hexachlorobutadiene	--- U	5.00	ug/L						
Hexachlorocyclopentadiene	--- U	5.00	ug/L						
Hexachloroethane	--- U	5.00	ug/L						
Isophorone	--- U	5.00	ug/L						
Nitrobenzene	--- U	5.00	ug/L						
N-Nitrosodimethylamine	--- U	5.00	ug/L						
N-Nitroso-Di-N-Propylamine	--- U	5.00	ug/L						
N-Nitrosodiphenylamine	--- U	5.00	ug/L						
Pentachlorophenol	--- U	5.00	ug/L						
Phenol	--- U	5.00	ug/L						
Pyrene	--- U	5.00	ug/L						
Surrogate: 2-Fluoroaniline	*40.1*		ug/L	*50.00*		*80.1*	*60-140*		
Surrogate: Phenol-D6	*ND*		ug/L	*50.00*		*31.6*	*60-140*		
Surrogate: Naphthalene-D8	*38.8*		ug/L	*50.00*		*77.7*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*37.0*		ug/L	*50.00*		*74.1*	*60-140*		
Surrogate: 2,4-Dibromophenol	*37.7*		ug/L	*50.00*		*75.4*	*60-140*		
Surrogate: Anthracene-D10	*50.3*		ug/L	*50.00*		*101*	*60-140*		
Surrogate: Chrysene-D12	*51.5*		ug/L	*50.00*		*103*	*60-140*		
LCS (B103041-BS1)									
Acenaphthene	48.7	5.00	ug/L	50.00		97.3	47-145		
Acenaphthylene	49.0	5.00	ug/L	50.00		98.0	33-145		
Anthracene	50.8	5.00	ug/L	50.00		102	27-133		
Benzo(A)Anthracene	50.9	5.00	ug/L	50.00		102	33-143		
Benzo(A)Pyrene	48.1	5.00	ug/L	50.00		96.2	17-163		
Benzo(B)Fluoranthene	51.9	5.00	ug/L	50.00		104	24-159		
Benzo(G,H,I)Perylene	53.2	5.00	ug/L	50.00		106	35-219		
Benzo(K)Fluoranthene	51.9	5.00	ug/L	50.00		104	11-162		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
LCS (B103041-BS1)									
Chrysene	52.8	5.00	ug/L	50.00		106	17-168		
Dibenzo(A,H)Anthracene	51.2	5.00	ug/L	50.00		102	33-227		
Fluoranthene	50.5	5.00	ug/L	50.00		101	26-137		
Fluorene	41.6	5.00	ug/L	50.00		83.3	59-121		
Indeno(1,2,3-Cd)Pyrene	52.5	5.00	ug/L	50.00		105	39-171		
Naphthalene	41.8	5.00	ug/L	50.00		83.7	21-133		
Phenanthrene	49.9	5.00	ug/L	50.00		99.8	54-120		
1,2,4-Trichlorobenzene	39.3	5.00	ug/L	50.00		78.7	44-142		
2,4,6-Trichlorophenol	52.8	5.00	ug/L	50.00		106	37-144		
2,4-Dichlorophenol	49.1	5.00	ug/L	50.00		98.2	39-135		
2,4-Dimethylphenol	47.6	5.00	ug/L	50.00		95.1	32-120		
2,4-Dinitrotoluene	48.4	5.00	ug/L	50.00		96.7	39-139		
2,6-Dinitrotoluene	59.2	5.00	ug/L	50.00		118	50-158		
2,4-Dinitrophenol	50.7	5.00	ug/L	50.00		101	21-191		
2-Chloronaphthalene	47.1	5.00	ug/L	50.00		94.2	60-120		
2-Chlorophenol	44.3	5.00	ug/L	50.00		88.6	23-134		
2-Nitrophenol	48.5	5.00	ug/L	50.00		97.0	29-182		
3,3'- Dichlorobenzidine	58.6	5.00	ug/L	50.00		117	38-262		
4,6-Dinitro-2-Methylphenol	47.1	5.00	ug/L	50.00		94.2	17-181		
4-Bromophenyl-Phenylether	44.7	5.00	ug/L	50.00		89.4	53-127		
4-Chloro-3-Methylphenol	53.5	5.00	ug/L	50.00		107	22-147		
4-Chlorophenyl-Phenylether	42.5	5.00	ug/L	50.00		84.9	25-158		
4-Nitrophenol	31.2	5.00	ug/L	50.00		62.3	9-132		
Bis(-2-Chloroethoxy)Methane	44.9	5.00	ug/L	50.00		89.9	33-184		
Bis(2-Chloroethyl)Ether	43.8	5.00	ug/L	50.00		87.6	12-158		
Bis(2-Chloroisopropyl)Ether	39.2	5.00	ug/L	50.00		78.5	36-166		
Bis(2-Ethylhexyl)Phthalate	53.8	5.00	ug/L	50.00		108	8-158		
Butylbenzylphthalate	43.1	5.00	ug/L	50.00		86.2	38-152		
Azobenzene	40.7	5.00	ug/L	50.00		81.4	60-115		
Diethylphthalate	39.2	5.00	ug/L	50.00		78.4	31-114		
Dimethyl Phthalate	33.1	5.00	ug/L	50.00		66.2	28-120		
Di-N-Butyl Phthalate	50.8	5.00	ug/L	50.00		102	1-120		
Di-N-Octyl Phthalate	50.9	5.00	ug/L	50.00		102	4-146		
Hexachlorobenzene	46.6	5.00	ug/L	50.00		93.3	35-152		
Hexachlorobutadiene	35.3	5.00	ug/L	50.00		70.5	24-120		

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
LCS (B103041-BS1)									
Hexachlorocyclopentadiene	43.2	5.00	ug/L	50.00		86.3	15-76		
Hexachloroethane	34.2	5.00	ug/L	50.00		68.4	40-120		
Isophorone	49.0	5.00	ug/L	50.00		98.1	21-196		
Nitrobenzene	46.2	5.00	ug/L	50.00		92.3	35-180		
N-Nitrosodimethylamine	28.3	5.00	ug/L	50.00		56.6	17-127		
N-Nitroso-Di-N-Propylamine	43.6	5.00	ug/L	50.00		87.3	43-230		
N-Nitrosodiphenylamine	52.6	5.00	ug/L	50.00		105	79-139		
Pentachlorophenol	55.8	5.00	ug/L	50.00		112	14-176		
Phenol	20.7	5.00	ug/L	50.00		41.4	5-120		
Pyrene	48.9	5.00	ug/L	50.00		97.8	52-120		
Surrogate: 2-Fluoroaniline	*40.3*		ug/L	*50.00*		*80.5*	*60-140*		
Surrogate: Phenol-D6	*19.0*		ug/L	*50.00*		*38.0*	*60-140*		
Surrogate: Naphthalene-D8	*38.1*		ug/L	*50.00*		*76.2*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*35.3*		ug/L	*50.00*		*70.7*	*60-140*		
Surrogate: 2,4-Dibromophenol	*51.6*		ug/L	*50.00*		*103*	*60-140*		
Surrogate: Anthracene-D10	*45.2*		ug/L	*50.00*		*90.3*	*60-140*		
Surrogate: Chrysene-D12	*49.7*		ug/L	*50.00*		*99.4*	*60-140*		
LCS Dup (B103041-BSD1)									
Acenaphthene	50.0	5.00	ug/L	50.00		100	47-145	2.80	30
Acenaphthylene	50.1	5.00	ug/L	50.00		100	33-145	2.12	30
Anthracene	51.7	5.00	ug/L	50.00		103	27-133	1.66	30
Benzo(A)Anthracene	53.3	5.00	ug/L	50.00		107	33-143	4.72	30
Benzo(A)Pyrene	49.3	5.00	ug/L	50.00		98.7	17-163	2.50	30
Benzo(B)Fluoranthene	53.5	5.00	ug/L	50.00		107	24-159	2.90	30
Benzo(G,H,I)Perylene	54.9	5.00	ug/L	50.00		110	35-219	3.09	30
Benzo(K)Fluoranthene	53.4	5.00	ug/L	50.00		107	11-162	2.85	30
Chrysene	54.9	5.00	ug/L	50.00		110	17-168	3.88	30
Dibenzo(A,H)Anthracene	53.9	5.00	ug/L	50.00		108	33-227	5.06	30
Fluoranthene	50.4	5.00	ug/L	50.00		101	26-137	0.258	30
Fluorene	43.5	5.00	ug/L	50.00		87.0	59-121	4.35	30
Indeno(1,2,3-Cd)Pyrene	53.9	5.00	ug/L	50.00		108	39-171	2.71	30
Naphthalene	39.1	5.00	ug/L	50.00		78.3	21-133	6.69	30
Phenanthrene	50.8	5.00	ug/L	50.00		102	54-120	1.67	30
1,2,4-Trichlorobenzene	37.0	5.00	ug/L	50.00		73.9	44-142	6.21	30

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
LCS Dup (B103041-BSD1)									
2,4,6-Trichlorophenol	52.4	5.00	ug/L	50.00		105	37-144	0.779	30
2,4-Dichlorophenol	46.6	5.00	ug/L	50.00		93.1	39-135	5.25	30
2,4-Dimethylphenol	42.6	5.00	ug/L	50.00		85.1	32-120	11.1	30
2,4-Dinitrotoluene	48.9	5.00	ug/L	50.00		97.8	39-139	1.09	30
2,6-Dinitrotoluene	59.3	5.00	ug/L	50.00		119	50-158	0.321	30
2,4-Dinitrophenol	45.0	5.00	ug/L	50.00		89.9	21-191	12.0	30
2-Chloronaphthalene	47.5	5.00	ug/L	50.00		95.0	60-120	0.930	30
2-Chlorophenol	39.6	5.00	ug/L	50.00		79.3	23-134	11.1	30
2-Nitrophenol	44.8	5.00	ug/L	50.00		89.5	29-182	8.04	30
3,3'- Dichlorobenzidine	61.6	5.00	ug/L	50.00		123	38-262	4.94	30
4,6-Dinitro-2-Methylphenol	44.1	5.00	ug/L	50.00		88.2	17-181	6.58	30
4-Bromophenyl-Phenylether	46.8	5.00	ug/L	50.00		93.5	53-127	4.44	30
4-Chloro-3-Methylphenol	52.6	5.00	ug/L	50.00		105	22-147	1.68	30
4-Chlorophenyl-Phenylether	43.1	5.00	ug/L	50.00		86.2	25-158	1.47	30
4-Nitrophenol	29.4	5.00	ug/L	50.00		58.7	9-132	5.91	30
Bis(-2-Chloroethoxy)Methane	44.4	5.00	ug/L	50.00		88.7	33-184	1.30	30
Bis(2-Chloroethyl)Ether	41.4	5.00	ug/L	50.00		82.8	12-158	5.61	30
Bis(2-Chloroisopropyl)Ether	37.7	5.00	ug/L	50.00		75.3	36-166	4.11	30
Bis(2-Ethylhexyl)Phthalate	54.8	5.00	ug/L	50.00		110	8-158	1.82	30
Butylbenzylphthalate	43.6	5.00	ug/L	50.00		87.2	38-152	1.11	30
Azobenzene	42.5	5.00	ug/L	50.00		85.0	60-115	4.23	30
Diethylphthalate	40.8	5.00	ug/L	50.00		81.7	31-114	4.02	30
Dimethyl Phthalate	34.0	5.00	ug/L	50.00		68.0	28-120	2.71	30
Di-N-Butyl Phthalate	51.5	5.00	ug/L	50.00		103	1-120	1.35	30
Di-N-Octyl Phthalate	52.6	5.00	ug/L	50.00		105	4-146	3.36	30
Hexachlorobenzene	47.5	5.00	ug/L	50.00		95.0	35-152	1.81	30
Hexachlorobutadiene	33.6	5.00	ug/L	50.00		67.3	24-120	4.70	30
Hexachlorocyclopentadiene	39.8	5.00	ug/L	50.00		79.6	15-76	8.05	30
Hexachloroethane	32.1	5.00	ug/L	50.00		64.2	40-120	6.25	30
Isophorone	49.6	5.00	ug/L	50.00		99.2	21-196	1.18	30
Nitrobenzene	43.1	5.00	ug/L	50.00		86.2	35-180	6.81	30
N-Nitrosodimethylamine	24.8	5.00	ug/L	50.00		49.5	17-127	13.3	30
N-Nitroso-Di-N-Propylamine	43.6	5.00	ug/L	50.00		87.2	43-230	0.0459	30
N-Nitrosodiphenylamine	53.8	5.00	ug/L	50.00		108	79-139	2.33	30
Pentachlorophenol	54.3	5.00	ug/L	50.00		109	14-176	2.82	30

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
LCS Dup (B103041-BSD1)									
Phenol	17.9	5.00	ug/L	50.00		35.8	5-120	14.5	30
Pyrene	48.1	5.00	ug/L	50.00		96.3	52-120	1.57	30
Surrogate: 2-Fluoroaniline	*38.3*		ug/L	*50.00*		*76.5*	*60-140*		
Surrogate: Phenol-D6	*16.4*		ug/L	*50.00*		*32.8*	*60-140*		
Surrogate: Naphthalene-D8	*38.0*		ug/L	*50.00*		*75.9*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*35.6*		ug/L	*50.00*		*71.1*	*60-140*		
Surrogate: 2,4-Dibromophenol	*51.3*		ug/L	*50.00*		*103*	*60-140*		
Surrogate: Anthracene-D10	*46.3*		ug/L	*50.00*		*92.7*	*60-140*		
Surrogate: Chrysene-D12	*51.6*		ug/L	*50.00*		*103*	*60-140*		
Matrix Spike (B103041-MS1)	**Source: 2103014-01**								
Acenaphthene	45.0	5.21	ug/L	52.08	ND	86.4	47-145		
Acenaphthylene	44.8	5.21	ug/L	52.08	ND	86.1	33-145		
Anthracene	54.5	5.21	ug/L	52.08	ND	105	27-133		
Benzo(A)Anthracene	52.9	5.21	ug/L	52.08	ND	102	33-143		
Benzo(A)Pyrene	51.2	5.21	ug/L	52.08	ND	98.3	17-163		
Benzo(B)Fluoranthene	52.0	5.21	ug/L	52.08	ND	99.9	24-159		
Benzo(G,H,I)Perylene	43.0	5.21	ug/L	52.08	ND	82.6	35-219		
Benzo(K)Fluoranthene	54.1	5.21	ug/L	52.08	ND	104	11-162		
Chrysene	52.9	5.21	ug/L	52.08	ND	102	17-168		
Dibenzo(A,H)Anthracene	43.3	5.21	ug/L	52.08	ND	83.2	33-227		
Fluoranthene	58.2	5.21	ug/L	52.08	ND	112	26-137		
Fluorene	60.0	5.21	ug/L	52.08	ND	115	59-121		
Indeno(1,2,3-Cd)Pyrene	45.6	5.21	ug/L	52.08	ND	87.5	39-171		
Naphthalene	44.1	5.21	ug/L	52.08	ND	84.7	21-133		
Phenanthrene	56.4	5.21	ug/L	52.08	ND	108	54-120		
1,2,4-Trichlorobenzene	46.7	5.21	ug/L	52.08	ND	89.7	44-142		
2,4,6-Trichlorophenol	46.1	5.21	ug/L	52.08	ND	88.6	37-144		
2,4-Dichlorophenol	45.1	5.21	ug/L	52.08	ND	86.5	39-135		
2,4-Dimethylphenol	43.7	5.21	ug/L	52.08	ND	83.9	32-120		
2,4-Dinitrotoluene	60.1	5.21	ug/L	52.08	ND	115	39-139		
2,6-Dinitrotoluene	44.1	5.21	ug/L	52.08	ND	84.7	50-158		
2,4-Dinitrophenol	79.6	5.21	ug/L	52.08	ND	153	21-191		
2-Chloronaphthalene	48.2	5.21	ug/L	52.08	ND	92.5	60-120		
2-Chlorophenol	40.1	5.21	ug/L	52.08	ND	77.0	23-134		

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
Matrix Spike (B103041-MS1)	**Source: 2103014-01**								
2-Nitrophenol	45.8	5.21	ug/L	52.08	ND	87.9	29-182		
3,3'- Dichlorobenzidine	2.54	5.21	ug/L	52.08	ND	4.88	38-262		
4,6-Dinitro-2-Methylphenol	66.8	5.21	ug/L	52.08	ND	128	17-181		
4-Bromophenyl-Phenylether	59.6	5.21	ug/L	52.08	ND	115	53-127		
4-Chloro-3-Methylphenol	38.5	5.21	ug/L	52.08	ND	73.9	22-147		
4-Chlorophenyl-Phenylether	62.6	5.21	ug/L	52.08	ND	120	25-158		
4-Nitrophenol	20.6	5.21	ug/L	52.08	ND	39.5	9-132		
Bis(-2-Chloroethoxy)Methane	44.0	5.21	ug/L	52.08	ND	84.4	33-184		
Bis(2-Chloroethyl)Ether	40.9	5.21	ug/L	52.08	ND	78.6	12-158		
Bis(2-Chloroisopropyl)Ether	37.4	5.21	ug/L	52.08	ND	71.9	36-166		
Bis(2-Ethylhexyl)Phthalate	48.6	5.21	ug/L	52.08	ND	93.3	8-158		
Butylbenzylphthalate	48.8	5.21	ug/L	52.08	ND	93.8	38-152		
Azobenzene	53.8	5.21	ug/L	52.08	ND	103	61-106		
Diethylphthalate	58.5	5.21	ug/L	52.08	ND	112	31-114		
Dimethyl Phthalate	42.8	5.21	ug/L	52.08	ND	82.1	28-120		
Di-N-Butyl Phthalate	52.7	5.21	ug/L	52.08	ND	101	1-120		
Di-N-Octyl Phthalate	46.5	5.21	ug/L	52.08	ND	89.3	4-146		
Hexachlorobenzene	60.0	5.21	ug/L	52.08	ND	115	35-152		
Hexachlorobutadiene	45.3	5.21	ug/L	52.08	ND	87.0	24-120		
Hexachlorocyclopentadiene	43.3	5.21	ug/L	52.08	ND	83.2	15-76		
Hexachloroethane	41.6	5.21	ug/L	52.08	ND	79.9	40-120		
Isophorone	45.5	5.21	ug/L	52.08	ND	87.3	21-196		
Nitrobenzene	44.1	5.21	ug/L	52.08	ND	84.6	35-180		
N-Nitrosodimethylamine	21.1	5.21	ug/L	52.08	ND	40.4	17-127		
N-Nitroso-Di-N-Propylamine	43.1	5.21	ug/L	52.08	ND	82.7	43-230		
N-Nitrosodiphenylamine	59.5	5.21	ug/L	52.08	ND	114	79-139		
Pentachlorophenol	76.3	5.21	ug/L	52.08	ND	146	14-176		
Phenol	18.7	5.21	ug/L	52.08	ND	35.9	5-120		
Pyrene	58.3	5.21	ug/L	52.08	ND	112	52-120		
Surrogate: 2-Fluoroaniline	*26.6*		ug/L	*52.08*		*51.0*	*60-140*		
Surrogate: Phenol-D6	*17.0*		ug/L	*52.08*		*32.6*	*60-140*		
Surrogate: Naphthalene-D8	*42.3*		ug/L	*52.08*		*81.3*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*42.3*		ug/L	*52.08*		*81.2*	*60-140*		
Surrogate: 2,4-Dibromophenol	*42.1*		ug/L	*52.08*		*80.8*	*60-140*		
Surrogate: Anthracene-D10	*49.6*		ug/L	*52.08*		*95.2*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103041									
Matrix Spike (B103041-MS1)		**Source: 2103014-01**							
Surrogate: Chrysene-D12	*50.3*		ug/L	*52.08*		*96.7*	*60-140*		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

GC - Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B104012									
Blank (B104012-BLK1)									
Oil & Grease	--- U	5.00	mg/L						
LCS (B104012-BS1)									
Oil & Grease	34.3	5.00	mg/L	40.00		86	78-114		
LCS Dup (B104012-BSD1)									
Oil & Grease	34.8	5.00	mg/L	40.00		87	78-114	1	20
Matrix Spike (B104012-MS1)	**Source: 2103014-08**								
Oil & Grease	51.0	5.00	mg/L	49.38	4.90	93	78-114		

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103052									
Blank (B103052-BLK1)									
Cadmium	--- U	3.00	ug/L						
Chromium	--- U	5.00	ug/L						
Copper	--- U	10.0	ug/L						
Lead	--- U	8.00	ug/L						
Nickel	--- U	20.0	ug/L						
Silver	--- U	5.00	ug/L						
Zinc	--- U	20.0	ug/L						
LCS (B103052-BS1)									
Cadmium	204	3.00	ug/L	200.0		102	85-115		
Chromium	205	5.00	ug/L	200.0		103	85-115		
Copper	202	10.0	ug/L	200.0		101	85-115		
Lead	205	8.00	ug/L	200.0		103	85-115		
Nickel	205	20.0	ug/L	200.0		102	85-115		
Silver	203	5.00	ug/L	200.0		102	85-115		
Zinc	200	20.0	ug/L	200.0		100	85-115		
LCS Dup (B103052-BSD1)									
Cadmium	203	3.00	ug/L	200.0		102	85-115	0.398	20
Chromium	204	5.00	ug/L	200.0		102	85-115	0.611	20
Copper	201	10.0	ug/L	200.0		101	85-115	0.357	20
Lead	203	8.00	ug/L	200.0		101	85-115	1.22	20
Nickel	204	20.0	ug/L	200.0		102	85-115	0.515	20
Silver	203	5.00	ug/L	200.0		101	85-115	0.394	20
Zinc	198	20.0	ug/L	200.0		99.1	85-115	1.03	20
Matrix Spike (B103052-MS1)	**Source: 2103014-09**								
Cadmium	201	3.00	ug/L	200.0	ND	100	80-120		
Chromium	205	5.00	ug/L	200.0	ND	102	80-120		
Copper	233	10.0	ug/L	200.0	20.5	106	80-120		
Lead	199	8.00	ug/L	200.0	ND	99.5	80-120		
Nickel	212	20.0	ug/L	200.0	10.6	101	80-120		
Silver	207	5.00	ug/L	200.0	1.53	103	80-120		
Zinc	209	20.0	ug/L	200.0	10.4	99.5	80-120		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103052									
Matrix Spike Dup (B103052-MSD1)	**Source: 2103014-09**								
Cadmium	208	15.0	ug/L	200.0	ND	104	80-120	3.84	10
Chromium	210	25.0	ug/L	200.0	ND	105	80-120	2.60	10
Copper	230	50.0	ug/L	200.0	20.5	105	80-120	1.33	10
Lead	203	40.0	ug/L	200.0	ND	102	80-120	2.08	10
Nickel	218	100	ug/L	200.0	10.6	104	80-120	2.47	10
Silver	210	25.0	ug/L	200.0	1.53	104	80-120	1.35	10
Zinc	215	100	ug/L	200.0	10.4	102	80-120	2.57	10

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

Mercury CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B104002									
Blank (B104002-BLK1)									
Mercury	--- U	0.050	ug/L						
Blank (B104002-BLK2)									
Mercury	--- U	0.050	ug/L						
LCS (B104002-BS1)									
Mercury	0.957	0.050	ug/L	1.000		95.7	85-115		
LCS (B104002-BS2)									
Mercury	0.990	0.050	ug/L	1.000		99.0	85-115		
LCS Dup (B104002-BSD1)									
Mercury	0.961	0.050	ug/L	1.000		96.1	85-115	0.417	20
LCS Dup (B104002-BSD2)									
Mercury	0.967	0.050	ug/L	1.000		96.7	85-115	2.35	20
Matrix Spike (B104002-MS3)	**Source: 2103014-09**								
Mercury	1.03	0.050	ug/L	1.000	ND	103	80-120		

Final Report

Project: Matco Tools - 2103014

Project Number: 2103014

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B103042									
Blank (B103042-BLK1)									
Cyanide, Total	--- U	10.0	ug/L						
Blank (B103042-BLK2)									
Cyanide, Total	--- U	10.0	ug/L						
LCS (B103042-BS1)									
Cyanide, Total	315	10.0	ug/L	340.0		93	90-110		
LCS Dup (B103042-BSD1)									
Cyanide, Total	317	10.0	ug/L	340.0		93	90-110	0.6	20
Matrix Spike (B103042-MS1)	**Source: 2103014-01**								
Cyanide, Total	537	10.0	ug/L	500.0	ND	107	90-110		

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY Matco Tools, Lakewood, NY

PROJECT LEADER Bob Morrell

PROGRAM: SF ☐ : SITE ID ____ OPERABLE UNIT ____ PROGRAM RESULTS CODE ____

Decision Unit Code	RCRA ☐ Y206	RCRA ENF ☐ D210	NPDES ☑ D307	SDWA ☐ B304	AM ☐ C215	CAA ☐ B224	TSCA ☐ A305	OD ☐ L306	FIFRA ☐ B253	CRIMINAL ENF ☐

Permit #: Pretreatment LAB ID/ FIELD ID	# OF CONTERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Effluent-Grab Comp.	3	A	☑	2 1-liter amber glass jars for TTO N/VOA's	☑	0 1 2 3 4 5 6 7 8 9 10	1040		03/18/21
			☑	1 250-ml plastic jar for Cyanide	☑	0 1 2 3 4 5 6 7 8 9 10		0742	03/19/21
Effluent-Grab #1	6	A	☑	6 40-ml glass vials for TTO VOA's	☑	0 1 2 3 4 5 6 7 8 9 10		1040	03/18/21
Effluent-Grab #2	3	A	☑	3 40-ml glass vials for TTO VOA's	☑	0 1 2 3 4 5 6 7 8 9 10		1440	03/18/21
Effluent-Grab #3	3	A	☑	3 40-ml glass vials for TTO VOA's	☑	0 1 2 3 4 5 6 7 8 9 10		1935	03/18/21
Effluent-Grab #4	3	A	☑	3 40-ml glass vials for TTO VOA's	☑	0 1 2 3 4 5 6 7 8 9 10		0742	03/19/21
Trip Blank	3	A	☐	3 40-ml glass vials for TTO VOA's	☐	0 1 2 3 4 5 6 7 8 9 10		1022	03/18/21
Effluent-Grab #5	3	A	☑	3 1-liter glass jars for Oil + Grease	☐	0 1 2 3 4 5 6 7 8 9 10		1106	03/18/21
Effluent-24-Hr Comp.	1	A	☑	1 500-ml plastic jar for Metals (Cd, Cr, Cu, Pb, Ni, Ag,	☐	0 1 2 3 4 5 6 7 8 9 10	0745		03/18/21
			☐	Zn, Fe, Hg)	☐	0 1 2 3 4 5 6 7 8 9 10		0745	03/19/21

COMMENTS & SPECIAL REQUIREMENTS:

Effluent Grabs #1 through #4 will be composited in the laboratory.

Preservative Added & Checked

0=ice
1=H2SO4 pH<2
2=HNO3 pH<2
3=HCl pH<2
4=Na2S2O3
5=NaOH pH>9
6=Ascorbic Acid
7=FAS
8=ZnAc
9=NaOH pH>12
10=NH4Cl

	Time	Date
Person Assuming Responsibility for Sample(s): Robert A. Morrell Jr.	0745	3/19/21
Relinquished By: Robert A. Morrell Jr. / Received By:	17:08	3/19/21
Relinquished By: / Received By:		
Relinquished By: / Received By:		

Matrix:

A=aqueous
B=aqueous (chlorinated)
C=soil
D=sediment
E=sludge
F=multiphasic
G=solvent
H=biota
I=oil
J=other

Survey Complete? Y ☑ N ☐