



11-Dec-2017

Kevin Stetter
U.S. Steel - Gary Works
1 North Broadway
Mail Station 70
Gary, IN 46402

Re: **USS Gary - SWD1 4Q2017**

Work Order: **17111888**

Dear Kevin,

ALS Environmental received 4 samples on 30-Nov-2017 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 15.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amanda Grzybowski".

Electronically approved by: Amanda Grzybowski

Amanda Grzybowski
Project Manager

Certificate No: IN: C-MI-08

Report of Laboratory Analysis

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Work Order: 17111888

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
17111888-01	SWD1-B-GW-11282017	Aqueous	SWD1-B	11/28/2017 12:50	11/30/2017 14:00	<input type="checkbox"/>
17111888-02	EL-MW-21S-GW-11282017	Aqueous	EL-MW-21S	11/28/2017 10:03	11/30/2017 14:00	<input type="checkbox"/>
17111888-03	EL-MW-21D-GW-11282017	Aqueous	EL-MW-21D	11/28/2017 11:15	11/30/2017 14:00	<input type="checkbox"/>
17111888-04	TB03-11282017	Aqueous	TB03	11/28/2017	11/30/2017 14:00	<input type="checkbox"/>

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Work Order: 17111888

Case Narrative

Samples for the above noted Work Order were received on 11/30/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Sample Receiving:

No deviations or anomalies were noted.

Volatile Organics:

Batch R225902, Method VOC 8260, Sample 17111888-03A MS/MSD: The MS and MSD recoveries were below the lower control limit for Benzene. The corresponding result in the parent sample may be biased low.

No other deviations or anomalies were noted.

ALS Group, USA

Date: 11-Dec-17

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Sample ID: SWD1-B-GW-11282017
Collection Date: 11/28/2017 12:50 PM

Work Order: 17111888
Lab ID: 17111888-01
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: WH	
Benzene	U		0.42	1.0	µg/L	1	12/7/2017 17:24
Trichloroethene	U		0.33	1.0	µg/L	1	12/7/2017 17:24
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	12/7/2017 17:24
Surr: 4-Bromofluorobenzene	93.8			80-110	%REC	1	12/7/2017 17:24
Surr: Dibromofluoromethane	97.8			85-115	%REC	1	12/7/2017 17:24
Surr: Toluene-d8	99.6			85-110	%REC	1	12/7/2017 17:24

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 11-Dec-17

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Sample ID: EL-MW-21S-GW-11282017
Collection Date: 11/28/2017 10:03 AM

Work Order: 17111888
Lab ID: 17111888-02
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: WH	
Benzene	150		0.84	2.0	µg/L	2	12/7/2017 14:56
Trichloroethene	U		0.33	1.0	µg/L	1	12/7/2017 20:54
Surr: 1,2-Dichloroethane-d4	98.2			75-120	%REC	2	12/7/2017 14:56
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	12/7/2017 20:54
Surr: 4-Bromofluorobenzene	96.0			80-110	%REC	2	12/7/2017 14:56
Surr: 4-Bromofluorobenzene	95.8			80-110	%REC	1	12/7/2017 20:54
Surr: Dibromofluoromethane	96.6			85-115	%REC	2	12/7/2017 14:56
Surr: Dibromofluoromethane	104			85-115	%REC	1	12/7/2017 20:54
Surr: Toluene-d8	102			85-110	%REC	2	12/7/2017 14:56
Surr: Toluene-d8	99.2			85-110	%REC	1	12/7/2017 20:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 11-Dec-17

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Sample ID: EL-MW-21D-GW-11282017
Collection Date: 11/28/2017 11:15 AM

Work Order: 17111888
Lab ID: 17111888-03
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: WH	
Benzene	150,000		840	2,000	µg/L	2000	12/7/2017 15:17
Trichloroethene	U		33	100	µg/L	100	12/6/2017 18:56
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	100	12/6/2017 18:56
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	2000	12/7/2017 15:17
Surr: 4-Bromofluorobenzene	98.4			80-110	%REC	100	12/6/2017 18:56
Surr: 4-Bromofluorobenzene	96.7			80-110	%REC	2000	12/7/2017 15:17
Surr: Dibromofluoromethane	99.9			85-115	%REC	100	12/6/2017 18:56
Surr: Dibromofluoromethane	99.0			85-115	%REC	2000	12/7/2017 15:17
Surr: Toluene-d8	97.0			85-110	%REC	100	12/6/2017 18:56
Surr: Toluene-d8	99.6			85-110	%REC	2000	12/7/2017 15:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 11-Dec-17

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
Sample ID: TB03-11282017
Collection Date: 11/28/2017

Work Order: 17111888
Lab ID: 17111888-04
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: WH	
Benzene	U		0.42	1.0	µg/L	1	12/6/2017 16:50
Trichloroethene	U		0.33	1.0	µg/L	1	12/6/2017 16:50
Surr: 1,2-Dichloroethane-d4	100			75-120	%REC	1	12/6/2017 16:50
Surr: 4-Bromofluorobenzene	93.8			80-110	%REC	1	12/6/2017 16:50
Surr: Dibromofluoromethane	95.8			85-115	%REC	1	12/6/2017 16:50
Surr: Toluene-d8	96.4			85-110	%REC	1	12/6/2017 16:50

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: U.S. Steel - Gary Works
Project: USS Gary - SWD1 4Q2017
WorkOrder: 17111888

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

Sample Receipt Checklist

Client Name: **USS-GARY**

Date/Time Received: **30-Nov-17 00:00**

Work Order: **17111888**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

01-Dec-17
Date

Reviewed by: Amanda Przybowski
eSignature

01-Dec-17
Date

Matrices: **Aqueous**

Carrier name: **ALSHN**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.0/2.0 c</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>12/1/2017 8:17:04 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

ALS Group, USA

Date: 11-Dec-17

Client: U.S. Steel - Gary Works
Work Order: 17111888
Project: USS Gary - SWD1 4Q2017

QC BATCH REPORT

Batch ID: **R225902** Instrument ID **VMS7** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-171206-R225902				Units: µg/L		Analysis Date: 12/6/2017 03:23 PM			
Client ID:		Run ID: VMS7_171206A				SeqNo: 4797072		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	0.42	1.0								
Trichloroethene	U	0.33	1.0								
Surr: 1,2-Dichloroethane-d4	20.34	0	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	19.65	0	0	20	0	98.2	80-110	0			
Surr: Dibromofluoromethane	19.61	0	0	20	0	98	85-115	0			
Surr: Toluene-d8	19.79	0	0	20	0	99	85-110	0			

LCS		Sample ID: VLCSW1-171206-R225902				Units: µg/L		Analysis Date: 12/6/2017 02:20 PM			
Client ID:		Run ID: VMS7_171206A				SeqNo: 4797067		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.42	0.42	1.0	20	0	97.1	85-125	0			
Trichloroethene	19.42	0.33	1.0	20	0	97.1	84-130	0			
Surr: 1,2-Dichloroethane-d4	20.2	0	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	19.57	0	0	20	0	97.8	80-110	0			
Surr: Dibromofluoromethane	19.76	0	0	20	0	98.8	85-115	0			
Surr: Toluene-d8	19.8	0	0	20	0	99	85-110	0			

MS		Sample ID: 17111888-03A MS				Units: µg/L		Analysis Date: 12/6/2017 11:52 PM			
Client ID: EL-MW-21D-GW-11282017		Run ID: VMS7_171206A				SeqNo: 4797116		Prep Date:		DF: 100	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	144200	42	100	2000	152300	-405	85-125	0			SEO
Trichloroethene	1925	33	100	2000	0	96.2	84-130	0			
Surr: 1,2-Dichloroethane-d4	2060	0	0	2000	0	103	75-120	0			
Surr: 4-Bromofluorobenzene	1929	0	0	2000	0	96.4	80-110	0			
Surr: Dibromofluoromethane	2081	0	0	2000	0	104	85-115	0			
Surr: Toluene-d8	1994	0	0	2000	0	99.7	85-110	0			

MSD		Sample ID: 17111888-03A MSD				Units: µg/L		Analysis Date: 12/7/2017 12:13 PM			
Client ID: EL-MW-21D-GW-11282017		Run ID: VMS7_171206A				SeqNo: 4797117		Prep Date:		DF: 100	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	146900	42	100	2000	152300	-272	85-125	144200	1.83	30	SEO
Trichloroethene	1980	33	100	2000	0	99	84-130	1925	2.82	30	
Surr: 1,2-Dichloroethane-d4	2092	0	0	2000	0	105	75-120	2060	1.54	30	
Surr: 4-Bromofluorobenzene	1919	0	0	2000	0	96	80-110	1929	0.52	30	
Surr: Dibromofluoromethane	2127	0	0	2000	0	106	85-115	2081	2.19	30	
Surr: Toluene-d8	2026	0	0	2000	0	101	85-110	1994	1.59	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
Work Order: 17111888
Project: USS Gary - SWD1 4Q2017

QC BATCH REPORT

Batch ID: **R225902** Instrument ID **VMS7** Method: **SW8260B**

The following samples were analyzed in this batch:

17111888-01A	17111888-02A	17111888-03A
17111888-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
 Work Order: 17111888
 Project: USS Gary - SWD1 4Q2017

QC BATCH REPORT

Batch ID: **R225972** Instrument ID **VMS7** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-171207-R225972				Units: µg/L		Analysis Date: 12/7/2017 01:11 PM			
Client ID:		Run ID: VMS7_171207A				SeqNo: 4800638		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	0.42	1.0								
Trichloroethene	U	0.33	1.0								
Surr: 1,2-Dichloroethane-d4	20.13	0	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	18.55	0	0	20	0	92.8	80-110	0			
Surr: Dibromofluoromethane	19.94	0	0	20	0	99.7	85-115	0			
Surr: Toluene-d8	19.61	0	0	20	0	98	85-110	0			

MBLK		Sample ID: MBLK--R225972				Units: µg/Kg-dry		Analysis Date: 12/7/2017 01:32 PM			
Client ID:		Run ID: VMS7_171207A				SeqNo: 4800699		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.1	30								
Trichloroethene	U	13	30								
Surr: 1,2-Dichloroethane-d4	20.98	0	0	20	0	105	70-130	0			
Surr: 4-Bromofluorobenzene	19.02	0	0	20	0	95.1	70-130	0			
Surr: Dibromofluoromethane	20.15	0	0	20	0	101	70-130	0			
Surr: Toluene-d8	19.91	0	0	20	0	99.6	70-130	0			

LCS		Sample ID: VLCSW1-171207-R225972				Units: µg/L		Analysis Date: 12/7/2017 12:08 PM			
Client ID:		Run ID: VMS7_171207A				SeqNo: 4800634		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.2	0.42	1.0	20	0	101	85-125	0			
Trichloroethene	20.41	0.33	1.0	20	0	102	84-130	0			
Surr: 1,2-Dichloroethane-d4	20.69	0	0	20	0	103	75-120	0			
Surr: 4-Bromofluorobenzene	19.69	0	0	20	0	98.4	80-110	0			
Surr: Dibromofluoromethane	20.59	0	0	20	0	103	85-115	0			
Surr: Toluene-d8	20.57	0	0	20	0	103	85-110	0			

LCS		Sample ID: LCS--R225972				Units: µg/Kg-dry		Analysis Date: 12/7/2017 12:29 PM			
Client ID:		Run ID: VMS7_171207A				SeqNo: 4800697		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.9	5.1	30	20	0	94.5	75-125	0			J
Trichloroethene	19.35	13	30	20	0	96.8	75-125	0			J
Surr: 1,2-Dichloroethane-d4	19.94	0	0	20	0	99.7	70-130	0			
Surr: 4-Bromofluorobenzene	19.74	0	0	20	0	98.7	70-130	0			
Surr: Dibromofluoromethane	20.27	0	0	20	0	101	70-130	0			
Surr: Toluene-d8	20.11	0	0	20	0	101	70-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
 Work Order: 17111888
 Project: USS Gary - SWD1 4Q2017

QC BATCH REPORT

Batch ID: **R225972** Instrument ID **VMS7** Method: **SW8260B**

MS					Units: µg/L			Analysis Date: 12/7/2017 09:57 PM			
Sample ID: 1712314-01A MS											
Client ID:					Run ID: VMS7_171207A			SeqNo: 4800671		Prep Date:	
										DF: 10	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	188.4	4.2	10	200	0	94.2	85-125	0			
Trichloroethene	188.6	3.3	10	200	0	94.3	84-130	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>207.2</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>194.2</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>97.1</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>210.8</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>105</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>188.1</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>94</i>	<i>85-110</i>	<i>0</i>			

MSD					Units: µg/L			Analysis Date: 12/7/2017 10:18 PM			
Sample ID: 1712314-01A MSD											
Client ID:					Run ID: VMS7_171207A			SeqNo: 4800672		Prep Date:	
										DF: 10	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	190	4.2	10	200	0	95	85-125	188.4	0.846	30	
Trichloroethene	189.2	3.3	10	200	0	94.6	84-130	188.6	0.318	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>208.2</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>207.2</i>	<i>0.481</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>183.9</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>92</i>	<i>80-110</i>	<i>194.2</i>	<i>5.45</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>203.8</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>210.8</i>	<i>3.38</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>195.3</i>	<i>0</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>97.6</i>	<i>85-110</i>	<i>188.1</i>	<i>3.76</i>	<i>30</i>	

The following samples were analyzed in this batch:

17111888-01A	17111888-02A	17111888-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Sample Receipt Checklist

Client Name: **USS-GARY**

Date/Time Received: **30-Nov-17 00:00**

Work Order: **17111888**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

01-Dec-17
Date

Reviewed by: Amanda Przybowski
eSignature

01-Dec-17
Date

Matrices: **Aqueous**

Carrier name: **ALSHN**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.0/2.0 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>12/1/2017 8:17:04 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

Page 1 of 1

☒ **ALS Environmental**
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Customer Information		Project Information		Parameter/Method Request for Analysis															
Purchase Order		Project Name	USS SWD-1	A 8260B VOC (TCE, Benzene)															
Work Order		Project Number		B															
Company Name	USS Gary Works	Bill To Company	US Steel Corporation	C															
Send Report To	Kevin Statter	Invoice Attn.	Accounts Payable	D															
Address	Penn Liberty Plaza 1 1360 Penn Ave. Suite 200	Address	PO Box 267	E															
City/State/Zip	Gary, IN	City/State/Zip	Pittsburgh, PA 15230	F															
Phone	Pittsburgh, PA 15222	Phone		G															
Fax		Fax		H															
e-Mail Address	mmaxwell@wcgrp.com, rstichnoth@wcgrp.com, sbonola@wcgrp.com			I															
Comments				J															
				K															
				L															
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	K	L	
1	SWD1-B-GW-11282017	11-28	1250	AQ	1	3	X												
2																			
3	EL-MW-21S-GW-11282017		1603	AQ	1	3	X												
4																			
5	EL-MW-21D-GW-11282017		1115	AQ	1	3	X												
6																			
7	TB-03-11282017	11-28	—	AQ	1	3	X												
8																			
9																			
10																			
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)										Results Due Date:					
Angie Bouche <i>Angie Bouche</i>				<input type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input checked="" type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour															
Relinquished by:		Date:	Time:	Received by:		Date:	Time:	Notes:											
Angie Bouche <i>Angie Bouche</i>		11-30-17	0715	<i>BLZ</i>		11-30-17	0715												
Relinquished by:		Date:	Time:	Received by:		Date:	Time:	QC Package: (Check Box Below)											
<i>BLZ</i>		11-30-17		<i>BLZ</i>		11/30/17	1400	<input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data											
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				<input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV											
								<input checked="" type="checkbox"/> Level IV: SW846 Methods/CLP like											
								<input type="checkbox"/> Other: _____											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C																		Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.	