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July 07, 2020

Eric Matzner
Golder Associates Inc.
2201 Double Creek Drive
Suite 4004
Round Rock, TX 78664

Work Order: **HS20061366**

Laboratory Results for: **Houston TX-Wood Preserving Works IDW**

Dear Eric Matzner,

ALS Environmental received 1 sample(s) on Jun 26, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

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

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
Work Order: HS20061366

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20061366-01	WW-1620-GW Drum-20200625	Water		25-Jun-2020 09:00	26-Jun-2020 14:15	<input type="checkbox"/>

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
Work Order: HS20061366

CASE NARRATIVE

Work Order Comments

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method TX1005

Batch ID: 154961

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Semivolatiles by Method SW8270

Batch ID: 154949

Sample ID: LCSD-154949

- The RPD between the LCS and LCSD was outside of the control limit for select analytes.

GCMS Volatiles by Method SW8260

Batch ID: R364448

Sample ID: VLCSW-200702

- Acetone exceeded QC limits for LCS. The analyte was not detected in the samples.

Sample ID: HS20061256-14MS

- MS and MSD are for an unrelated sample.

Metals by Method SW6020

Batch ID: 154994

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW7470

Batch ID: 154985

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9040C

Batch ID: R364629

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM4500 S2-F

Batch ID: R364362

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW1010

Batch ID: R364165

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
Work Order: HS20061366

CASE NARRATIVE

WetChemistry by Method SW1010

WetChemistry by Method SW9014

Batch ID: 155171

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works IDW
 Sample ID: WW-1620-GW Drum-20200625
 Collection Date: 25-Jun-2020 09:00

ANALYTICAL REPORT
 WorkOrder:HS20061366
 Lab ID:HS20061366-01
 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MLL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC			
1,1,1-Trichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
1,1,2,2-Tetrachloroethane	< 0.00050		0.00050	0.0010	mg/L	1	02-Jul-2020 22:26
1,1,2-Trichloroethane	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
1,1-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
1,1-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
1,2-Dichlorobenzene	< 0.00050		0.00050	0.0010	mg/L	1	02-Jul-2020 22:26
1,2-Dichloroethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
1,2-Dichloropropane	< 0.00050		0.00050	0.0010	mg/L	1	02-Jul-2020 22:26
1,3-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	02-Jul-2020 22:26
1,4-Dichlorobenzene	< 0.00040		0.00040	0.0010	mg/L	1	02-Jul-2020 22:26
2-Butanone	< 0.00050		0.00050	0.0020	mg/L	1	02-Jul-2020 22:26
2-Hexanone	< 0.0010		0.0010	0.0020	mg/L	1	02-Jul-2020 22:26
4-Methyl-2-pentanone	< 0.00070		0.00070	0.0020	mg/L	1	02-Jul-2020 22:26
Acetone	< 0.0020		0.0020	0.0020	mg/L	1	02-Jul-2020 22:26
Benzene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Bromochloromethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Bromodichloromethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Bromoform	< 0.00040		0.00040	0.0010	mg/L	1	02-Jul-2020 22:26
Bromomethane	< 0.00040		0.00040	0.0010	mg/L	1	02-Jul-2020 22:26
Carbon disulfide	< 0.00060		0.00060	0.0020	mg/L	1	02-Jul-2020 22:26
Carbon tetrachloride	< 0.00050		0.00050	0.0010	mg/L	1	02-Jul-2020 22:26
Chlorobenzene	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Chloroethane	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Chloroform	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Chloromethane	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
cis-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
cis-1,3-Dichloropropene	< 0.00010		0.00010	0.0010	mg/L	1	02-Jul-2020 22:26
Dibromochloromethane	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Ethylbenzene	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
m,p-Xylene	< 0.00050		0.00050	0.0020	mg/L	1	02-Jul-2020 22:26
Methylene chloride	< 0.0010		0.0010	0.0020	mg/L	1	02-Jul-2020 22:26
o-Xylene	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Styrene	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Tetrachloroethene	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
Toluene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
trans-1,2-Dichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
trans-1,3-Dichloropropene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Trichloroethene	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Vinyl acetate	< 0.00050		0.00050	0.0010	mg/L	1	02-Jul-2020 22:26

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works IDW
 Sample ID: WW-1620-GW Drum-20200625
 Collection Date: 25-Jun-2020 09:00

ANALYTICAL REPORT
 WorkOrder:HS20061366
 Lab ID:HS20061366-01
 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	ML	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC			
Vinyl chloride	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Xylenes, Total	< 0.00030		0.00030	0.0010	mg/L	1	02-Jul-2020 22:26
1,2-Dichloroethene, Total	< 0.00020		0.00020	0.0010	mg/L	1	02-Jul-2020 22:26
Surr: 1,2-Dichloroethane-d4	98.7			70-126	%REC	1	02-Jul-2020 22:26
Surr: 4-Bromofluorobenzene	95.9			81-113	%REC	1	02-Jul-2020 22:26
Surr: Dibromofluoromethane	101			77-123	%REC	1	02-Jul-2020 22:26
Surr: Toluene-d8	99.3			82-127	%REC	1	02-Jul-2020 22:26

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works IDW
 Sample ID: WW-1620-GW Drum-20200625
 Collection Date: 25-Jun-2020 09:00

ANALYTICAL REPORT
 WorkOrder:HS20061366
 Lab ID:HS20061366-01
 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		Method:SW8270		Prep:SW3510 / 29-Jun-2020		Analyst: GEY	
1,2,4-Trichlorobenzene	< 0.000030		0.000030	0.00020	mg/L	1	06-Jul-2020 21:46
2,4,5-Trichlorophenol	< 0.000058		0.000058	0.00020	mg/L	1	06-Jul-2020 21:46
2,4,6-Trichlorophenol	< 0.000048		0.000048	0.00020	mg/L	1	06-Jul-2020 21:46
2,4-Dichlorophenol	< 0.000043		0.000043	0.00020	mg/L	1	06-Jul-2020 21:46
2,4-Dimethylphenol	< 0.000040		0.000040	0.00020	mg/L	1	06-Jul-2020 21:46
2,4-Dinitrophenol	< 0.00010		0.00010	0.0010	mg/L	1	06-Jul-2020 21:46
2,4-Dinitrotoluene	< 0.000059		0.000059	0.00020	mg/L	1	06-Jul-2020 21:46
2,6-Dinitrotoluene	< 0.000042		0.000042	0.00020	mg/L	1	06-Jul-2020 21:46
2-Chloronaphthalene	< 0.000021		0.000021	0.00020	mg/L	1	06-Jul-2020 21:46
2-Chlorophenol	< 0.000036		0.000036	0.00020	mg/L	1	06-Jul-2020 21:46
2-Methylnaphthalene	< 0.000019		0.000019	0.00010	mg/L	1	06-Jul-2020 21:46
2-Methylphenol	< 0.000045		0.000045	0.00020	mg/L	1	06-Jul-2020 21:46
2-Nitroaniline	< 0.000041		0.000041	0.00020	mg/L	1	06-Jul-2020 21:46
2-Nitrophenol	< 0.000034		0.000034	0.00020	mg/L	1	06-Jul-2020 21:46
3&4-Methylphenol	< 0.000036		0.000036	0.00020	mg/L	1	06-Jul-2020 21:46
3,3'-Dichlorobenzidine	< 0.000044		0.000044	0.00020	mg/L	1	06-Jul-2020 21:46
3-Nitroaniline	< 0.000049		0.000049	0.00020	mg/L	1	06-Jul-2020 21:46
4,6-Dinitro-2-methylphenol	< 0.000020		0.000020	0.00020	mg/L	1	06-Jul-2020 21:46
4-Bromophenyl phenyl ether	< 0.000052		0.000052	0.00020	mg/L	1	06-Jul-2020 21:46
4-Chloro-3-methylphenol	< 0.000032		0.000032	0.00020	mg/L	1	06-Jul-2020 21:46
4-Chloroaniline	< 0.000039		0.000039	0.00020	mg/L	1	06-Jul-2020 21:46
4-Chlorophenyl phenyl ether	< 0.000044		0.000044	0.00020	mg/L	1	06-Jul-2020 21:46
4-Nitroaniline	< 0.000035		0.000035	0.00020	mg/L	1	06-Jul-2020 21:46
4-Nitrophenol	< 0.000047		0.000047	0.0010	mg/L	1	06-Jul-2020 21:46
Acenaphthene	< 0.000027		0.000027	0.00010	mg/L	1	06-Jul-2020 21:46
Acenaphthylene	< 0.000015		0.000015	0.00010	mg/L	1	06-Jul-2020 21:46
Anthracene	0.000015	J	0.000014	0.00010	mg/L	1	06-Jul-2020 21:46
Benz(a)anthracene	< 0.000051		0.000051	0.00010	mg/L	1	06-Jul-2020 21:46
Benzidine	< 0.00010		0.00010	0.00020	mg/L	1	06-Jul-2020 21:46
Benzo(a)pyrene	< 0.000020		0.000020	0.00010	mg/L	1	06-Jul-2020 21:46
Benzo(b)fluoranthene	< 0.000023		0.000023	0.00010	mg/L	1	06-Jul-2020 21:46
Benzo(g,h,i)perylene	< 0.000014		0.000014	0.00010	mg/L	1	06-Jul-2020 21:46
Benzo(k)fluoranthene	< 0.000019		0.000019	0.00010	mg/L	1	06-Jul-2020 21:46
Benzyl alcohol	< 0.000055		0.000055	0.00020	mg/L	1	06-Jul-2020 21:46
Bis(2-chloroethoxy)methane	< 0.000030		0.000030	0.00020	mg/L	1	06-Jul-2020 21:46
Bis(2-chloroethyl)ether	< 0.000026		0.000026	0.00020	mg/L	1	06-Jul-2020 21:46
Bis(2-chloroisopropyl)ether	< 0.000071		0.000071	0.00020	mg/L	1	06-Jul-2020 21:46
Bis(2-ethylhexyl)phthalate	< 0.000037		0.000037	0.00020	mg/L	1	06-Jul-2020 21:46
Butyl benzyl phthalate	< 0.000019		0.000019	0.00020	mg/L	1	06-Jul-2020 21:46

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works IDW
 Sample ID: WW-1620-GW Drum-20200625
 Collection Date: 25-Jun-2020 09:00

ANALYTICAL REPORT
 WorkOrder:HS20061366
 Lab ID:HS20061366-01
 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		Method:SW8270		Prep:SW3510 / 29-Jun-2020		Analyst: GEY	
Carbazole	< 0.000025		0.000025	0.00020	mg/L	1	06-Jul-2020 21:46
Chrysene	< 0.000021		0.000021	0.00010	mg/L	1	06-Jul-2020 21:46
Di-n-butyl phthalate	< 0.000020		0.000020	0.00020	mg/L	1	06-Jul-2020 21:46
Di-n-octyl phthalate	< 0.000020		0.000020	0.00020	mg/L	1	06-Jul-2020 21:46
Dibenz(a,h)anthracene	< 0.000024		0.000024	0.00010	mg/L	1	06-Jul-2020 21:46
Dibenzofuran	< 0.000020		0.000020	0.00010	mg/L	1	06-Jul-2020 21:46
Diethyl phthalate	0.000068	J	0.000030	0.00020	mg/L	1	06-Jul-2020 21:46
Dimethyl phthalate	< 0.000041		0.000041	0.00020	mg/L	1	06-Jul-2020 21:46
Fluoranthene	< 0.000010		0.000010	0.00010	mg/L	1	06-Jul-2020 21:46
Fluorene	< 0.000030		0.000030	0.00010	mg/L	1	06-Jul-2020 21:46
Hexachlorobenzene	< 0.000044		0.000044	0.00020	mg/L	1	06-Jul-2020 21:46
Hexachlorobutadiene	< 0.000030		0.000030	0.00020	mg/L	1	06-Jul-2020 21:46
Hexachlorocyclopentadiene	< 0.000030		0.000030	0.00020	mg/L	1	06-Jul-2020 21:46
Hexachloroethane	< 0.000060		0.000060	0.00020	mg/L	1	06-Jul-2020 21:46
Indeno(1,2,3-cd)pyrene	< 0.000022		0.000022	0.00010	mg/L	1	06-Jul-2020 21:46
Isophorone	< 0.000025		0.000025	0.00020	mg/L	1	06-Jul-2020 21:46
N-Nitrosodi-n-propylamine	< 0.000032		0.000032	0.00020	mg/L	1	06-Jul-2020 21:46
N-Nitrosodimethylamine	< 0.00010		0.00010	0.00020	mg/L	1	06-Jul-2020 21:46
N-Nitrosodiphenylamine	< 0.000025		0.000025	0.00020	mg/L	1	06-Jul-2020 21:46
Naphthalene	< 0.000020		0.000020	0.00010	mg/L	1	06-Jul-2020 21:46
Nitrobenzene	< 0.000024		0.000024	0.00020	mg/L	1	06-Jul-2020 21:46
Pentachlorophenol	< 0.000080		0.000080	0.00020	mg/L	1	06-Jul-2020 21:46
Phenanthrene	< 0.000021		0.000021	0.00010	mg/L	1	06-Jul-2020 21:46
Phenol	< 0.000035		0.000035	0.00020	mg/L	1	06-Jul-2020 21:46
Pyrene	< 0.000019		0.000019	0.00010	mg/L	1	06-Jul-2020 21:46
Pyridine	< 0.000030		0.000030	0.0010	mg/L	1	06-Jul-2020 21:46
<i>Surr: 2,4,6-Tribromophenol</i>	<i>53.0</i>			<i>34-129</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>44.9</i>			<i>40-125</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
<i>Surr: 2-Fluorophenol</i>	<i>49.2</i>			<i>20-120</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>60.7</i>			<i>40-135</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
<i>Surr: Nitrobenzene-d5</i>	<i>44.7</i>			<i>41-120</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
<i>Surr: Phenol-d6</i>	<i>59.4</i>			<i>20-120</i>	<i>%REC</i>	<i>1</i>	<i>06-Jul-2020 21:46</i>
LOW-LEVEL TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 29-Jun-2020		Analyst: MBG	
nC6 to nC12	< 0.20		0.20	0.49	mg/L	1	30-Jun-2020 05:04
>nC12 to nC28	< 0.20		0.20	0.49	mg/L	1	30-Jun-2020 05:04
>nC28 to nC35	< 0.20		0.20	0.49	mg/L	1	30-Jun-2020 05:04
Total Petroleum Hydrocarbon	< 0.20		0.20	0.49	mg/L	1	30-Jun-2020 05:04
<i>Surr: 2-Fluorobiphenyl</i>	<i>81.1</i>			<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>30-Jun-2020 05:04</i>
<i>Surr: Trifluoromethyl benzene</i>	<i>91.0</i>			<i>70-130</i>	<i>%REC</i>	<i>1</i>	<i>30-Jun-2020 05:04</i>

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

Client: Golder Associates Inc.
 Project: Houston TX-Wood Preserving Works IDW
 Sample ID: WW-1620-GW Drum-20200625
 Collection Date: 25-Jun-2020 09:00

ANALYTICAL REPORT
 WorkOrder:HS20061366
 Lab ID:HS20061366-01
 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MLL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 30-Jun-2020		Analyst: JHD	
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	01-Jul-2020 13:11
Arsenic	0.00611		0.000400	0.00200	mg/L	1	01-Jul-2020 13:11
Barium	0.267		0.00190	0.00400	mg/L	1	01-Jul-2020 13:11
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	01-Jul-2020 13:11
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	01-Jul-2020 13:11
Chromium	0.00378	J	0.000400	0.00400	mg/L	1	01-Jul-2020 13:11
Lead	< 0.000600		0.000600	0.00200	mg/L	1	01-Jul-2020 13:11
Nickel	0.00169	J	0.000600	0.00200	mg/L	1	01-Jul-2020 13:11
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	01-Jul-2020 13:11
Silver	< 0.000200		0.000200	0.00200	mg/L	1	01-Jul-2020 13:11
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 29-Jun-2020		Analyst: FO	
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	29-Jun-2020 19:23
SULFIDE BY SM4500 S2-F		Method:SM4500 S2-F				Analyst: KVL	
Sulfide	< 1.00		1.00	1.00	mg/L	1	01-Jul-2020 17:00
FLASH POINT BY PENSKY-MARTENS SW1010A		Method:SW1010				Analyst: TH	
Ignitability	> 212		70.0	70.0	°F	1	29-Jun-2020 08:00
CYANIDE - SW9014		Method:SW9014		Prep:SW9010C / 02-Jul-2020		Analyst: KVL	
Cyanide	< 0.00200		0.00200	0.00500	mg/L	1	02-Jul-2020 14:30
PH BY SW9040C		Method:SW9040C				Analyst: JAC	
pH	7.75	H	0.100	0.100	pH Units	1	07-Jul-2020 13:33
Temp Deg C @pH	23.9	H	0	0	DEG C	1	07-Jul-2020 13:33

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

Weight / Prep Log

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

Batch ID: 154949 **Start Date:** 29 Jun 2020 07:00 **End Date:** 29 Jun 2020 14:30
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_LOW

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20061366-01	1	990 (mL)	1 (mL)	0.00101

Batch ID: 154961 **Start Date:** 29 Jun 2020 10:32 **End Date:** 29 Jun 2020 12:55
Method: TX 1005 PREP **Prep Code:** TX 1005_W PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20061366-01	1	30.57 (g)	3 (mL)	0.09814

Batch ID: 154985 **Start Date:** 29 Jun 2020 12:30 **End Date:** 29 Jun 2020 14:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20061366-01		10 (mL)	10 (mL)	1

Batch ID: 154994 **Start Date:** 30 Jun 2020 09:00 **End Date:** 30 Jun 2020 13:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20061366-01		10 (mL)	10 (mL)	1

Batch ID: 155171 **Start Date:** 02 Jul 2020 10:30 **End Date:** 02 Jul 2020 12:00
Method: CYANIDE PREP - SW9010C **Prep Code:** CN_TW_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20061366-01		50 (mL)	50 (mL)	1

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 154949 (1)		Test Name : LOW-LEVEL SEMIVOLATILES BY 8270D			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00		29 Jun 2020 08:47	06 Jul 2020 21:46	1
Batch ID: 154961 (0)		Test Name : LOW-LEVEL TEXAS TPH BY TX1005			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00		29 Jun 2020 10:32	30 Jun 2020 05:04	1
Batch ID: 154985 (0)		Test Name : MERCURY BY SW7470A			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00		29 Jun 2020 12:30	29 Jun 2020 19:23	1
Batch ID: 154994 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00		30 Jun 2020 13:00	01 Jul 2020 13:11	1
Batch ID: 155171 (0)		Test Name : CYANIDE - SW9014			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00		02 Jul 2020 10:30	02 Jul 2020 14:30	1
Batch ID: R364165 (0)		Test Name : FLASH POINT BY PENSKY-MARTENS SW1010A			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00			29 Jun 2020 08:00	1
Batch ID: R364362 (0)		Test Name : SULFIDE BY SM4500 S2-F			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00			01 Jul 2020 17:00	1
Batch ID: R364448 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00			02 Jul 2020 22:26	1
Batch ID: R364629 (0)		Test Name : PH BY SW9040C			Matrix: Water	
HS20061366-01	WW-1620-GW Drum-20200625	25 Jun 2020 09:00			07 Jul 2020 13:33	1

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154961 (0)	Instrument: FID-13	Method: LOW-LEVEL TEXAS TPH BY TX1005
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MBLK	Sample ID: MBLK-154961	Units: mg/L	Analysis Date: 29-Jun-2020 16:27							
Client ID:	Run ID: FID-13_364317	SeqNo: 5646186	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
nC6 to nC12	< 0.20	0.50								
>nC12 to nC28	< 0.20	0.50								
>nC28 to nC35	< 0.20	0.50								
Total Petroleum Hydrocarbon	< 0.20	0.50								
Surr: 2-Fluorobiphenyl	2.179	0	2.5	0	87.1	70 - 130				
Surr: Trifluoromethyl benzene	2.57	0	2.5	0	103	70 - 130				

LCS	Sample ID: LCS-154961	Units: mg/L	Analysis Date: 29-Jun-2020 16:56							
Client ID:	Run ID: FID-13_364317	SeqNo: 5646187	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
nC6 to nC12	22.3	0.50	25	0	89.2	75 - 125				
>nC12 to nC28	23.71	0.50	25	0	94.8	75 - 125				
Surr: 2-Fluorobiphenyl	2.284	0	2.5	0	91.4	70 - 130				
Surr: Trifluoromethyl benzene	2.207	0	2.5	0	88.3	70 - 130				

LCSD	Sample ID: LCSD-154961	Units: mg/L	Analysis Date: 29-Jun-2020 17:25							
Client ID:	Run ID: FID-13_364317	SeqNo: 5646188	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
nC6 to nC12	24.66	0.50	25	0	98.6	75 - 125	22.3	10.1	20	
>nC12 to nC28	25.53	0.50	25	0	102	75 - 125	23.71	7.38	20	
Surr: 2-Fluorobiphenyl	2.29	0	2.5	0	91.6	70 - 130	2.284	0.242	20	
Surr: Trifluoromethyl benzene	2.26	0	2.5	0	90.4	70 - 130	2.207	2.35	20	

MS	Sample ID: HS20061280-01MS	Units: mg/L	Analysis Date: 29-Jun-2020 18:24							
Client ID:	Run ID: FID-13_364317	SeqNo: 5646190	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
nC6 to nC12	24.28	0.50	24.91	0	97.5	75 - 125				
>nC12 to nC28	24.14	0.50	24.91	0	96.9	75 - 125				
Surr: 2-Fluorobiphenyl	2.333	0	2.491	0	93.7	70 - 130				
Surr: Trifluoromethyl benzene	2.281	0	2.491	0	91.6	70 - 130				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154961 (0) **Instrument:** FID-13 **Method:** LOW-LEVEL TEXAS TPH BY TX1005

MSD		Sample ID: HS20061280-01MSD			Units: mg/L		Analysis Date: 29-Jun-2020 18:53			
Client ID:		Run ID: FID-13_364317			SeqNo: 5646191		PrepDate: 29-Jun-2020		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	25.02	0.50	25.13	0	99.6	75 - 125	24.28	2.99	20	
>nC12 to nC28	26.57	0.50	25.13	0	106	75 - 125	24.14	9.59	20	
<i>Surr: 2-Fluorobiphenyl</i>	2.302	0	2.513	0	91.6	70 - 130	2.333	1.35	20	
<i>Surr: Trifluoromethyl benzene</i>	2.241	0	2.513	0	89.2	70 - 130	2.281	1.74	20	

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154985 (0)	Instrument: HG03	Method: MERCURY BY SW7470A
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MBLK	Sample ID: MBLK-154985	Units: mg/L	Analysis Date: 29-Jun-2020 18:38							
Client ID:	Run ID: HG03_364143	SeqNo: 5643458	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury < 0.0000300 0.000200

LCS	Sample ID: LCS-154985	Units: mg/L	Analysis Date: 29-Jun-2020 18:40							
Client ID:	Run ID: HG03_364143	SeqNo: 5643459	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00513 0.000200 0.005 0 103 80 - 120

MS	Sample ID: HS20060849-01MS	Units: ug/L	Analysis Date: 29-Jun-2020 18:44							
Client ID:	Run ID: HG03_364143	SeqNo: 5643483	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 5.2 0.200 5 0 104 82 - 119

MSD	Sample ID: HS20060849-01MSD	Units: ug/L	Analysis Date: 29-Jun-2020 18:45							
Client ID:	Run ID: HG03_364143	SeqNo: 5643484	PrepDate: 29-Jun-2020 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 5.18 0.200 5 0 104 82 - 119 5.2 0.385 20

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154994 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

MBLK		Sample ID: MBLK-154994		Units: mg/L		Analysis Date: 01-Jul-2020 12:21			
Client ID:		Run ID: ICPMS06_364311		SeqNo: 5646404		PrepDate: 30-Jun-2020		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Antimony	< 0.000400	0.00200							
Arsenic	< 0.000400	0.00200							
Barium	< 0.00190	0.00400							
Beryllium	< 0.000200	0.00200							
Cadmium	< 0.000200	0.00200							
Chromium	< 0.000400	0.00400							
Lead	< 0.000600	0.00200							
Nickel	< 0.000600	0.00200							
Selenium	< 0.00110	0.00200							
Silver	< 0.000200	0.00200							

LCS		Sample ID: LCS-154994		Units: mg/L		Analysis Date: 01-Jul-2020 00:05			
Client ID:		Run ID: ICPMS06_364204		SeqNo: 5645680		PrepDate: 30-Jun-2020		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Antimony	0.04333	0.00200	0.05	0	86.7	80 - 120			
Arsenic	0.04482	0.00200	0.05	0	89.6	80 - 120			
Barium	0.04178	0.00400	0.05	0	83.6	80 - 120			
Beryllium	0.04426	0.00200	0.05	0	88.5	80 - 120			
Cadmium	0.04266	0.00200	0.05	0	85.3	80 - 120			
Chromium	0.0423	0.00400	0.05	0	84.6	80 - 120			
Lead	0.04219	0.00200	0.05	0	84.4	80 - 120			
Nickel	0.04366	0.00200	0.05	0	87.3	80 - 120			
Selenium	0.0465	0.00200	0.05	0	93.0	80 - 120			
Silver	0.044	0.00200	0.05	0	88.0	80 - 120			

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154994 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

MS		Sample ID: HS20061363-01MS			Units: mg/L		Analysis Date: 01-Jul-2020 12:32			
Client ID:		Run ID: ICPMS06_364311			SeqNo: 5646410		PrepDate: 30-Jun-2020		DF: 2	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04411	0.00400	0.05	0.000348	87.5	80 - 120				
Arsenic	0.07976	0.00400	0.05	0.03342	92.7	80 - 120				
Barium	0.07197	0.00800	0.05	0.02597	92.0	80 - 120				
Beryllium	0.04612	0.00400	0.05	0.000005	92.2	80 - 120				
Cadmium	0.04625	0.00400	0.05	0.000032	92.4	80 - 120				
Chromium	0.04617	0.00800	0.05	0.000026	92.3	80 - 120				
Lead	0.04558	0.00400	0.05	0.000024	91.1	80 - 120				
Nickel	0.05329	0.00400	0.05	0.008212	90.2	80 - 120				
Selenium	0.05214	0.00400	0.05	0.006275	91.7	80 - 120				
Silver	0.04438	0.00400	0.05	-0.000001	88.8	80 - 120				

MSD		Sample ID: HS20061363-01MSD			Units: mg/L		Analysis Date: 01-Jul-2020 12:34			
Client ID:		Run ID: ICPMS06_364311			SeqNo: 5646411		PrepDate: 30-Jun-2020		DF: 2	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04391	0.00400	0.05	0.000348	87.1	80 - 120	0.04411	0.466	20	
Arsenic	0.07981	0.00400	0.05	0.03342	92.8	80 - 120	0.07976	0.0602	20	
Barium	0.07123	0.00800	0.05	0.02597	90.5	80 - 120	0.07197	1.04	20	
Beryllium	0.04649	0.00400	0.05	0.000005	93.0	80 - 120	0.04612	0.788	20	
Cadmium	0.0463	0.00400	0.05	0.000032	92.5	80 - 120	0.04625	0.0972	20	
Chromium	0.04514	0.00800	0.05	0.000026	90.2	80 - 120	0.04617	2.25	20	
Lead	0.04667	0.00400	0.05	0.000024	93.3	80 - 120	0.04558	2.36	20	
Nickel	0.05298	0.00400	0.05	0.008212	89.5	80 - 120	0.05329	0.578	20	
Selenium	0.05154	0.00400	0.05	0.006275	90.5	80 - 120	0.05214	1.16	20	
Silver	0.04426	0.00400	0.05	-0.000001	88.5	80 - 120	0.04438	0.257	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154994 (0) **Instrument:** ICPMS06 **Method:** ICP-MS METALS BY SW6020A

PDS		Sample ID: HS20061363-01PDS			Units: mg/L		Analysis Date: 01-Jul-2020 12:36			
Client ID:		Run ID: ICPMS06_364311			SeqNo: 5646412		PrepDate: 30-Jun-2020		DF: 2	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08488	0.00400	0.1	0.000348	84.5	75 - 125				
Arsenic	0.1227	0.00400	0.1	0.03342	89.3	75 - 125				
Barium	0.1108	0.00800	0.1	0.02597	84.8	75 - 125				
Beryllium	0.09132	0.00400	0.1	0.000005	91.3	75 - 125				
Cadmium	0.089	0.00400	0.1	0.000032	89.0	75 - 125				
Chromium	0.08871	0.00800	0.1	0.000026	88.7	75 - 125				
Lead	0.09001	0.00400	0.1	0.000024	90.0	75 - 125				
Nickel	0.09468	0.00400	0.1	0.008212	86.5	75 - 125				
Selenium	0.09479	0.00400	0.1	0.006275	88.5	75 - 125				
Silver	0.09006	0.00400	0.1	-0.000001	90.1	75 - 125				

SD		Sample ID: HS20061363-01SD			Units: mg/L		Analysis Date: 01-Jul-2020 12:31			
Client ID:		Run ID: ICPMS06_364311			SeqNo: 5646409		PrepDate: 30-Jun-2020		DF: 10	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	RPD Limit	Qual
Antimony	< 0.00400	0.0200					0.000348	0	10	
Arsenic	0.03277	0.0200					0.03342	1.94	10	
Barium	0.02674	0.0400					0.02597	0	10	J
Beryllium	< 0.00200	0.0200					0.000005	0	10	
Cadmium	< 0.00200	0.0200					0.000032	0	10	
Chromium	< 0.00400	0.0400					0.000026	0	10	
Lead	< 0.00600	0.0200					0.000024	0	10	
Nickel	0.00699	0.0200					0.008212	0	10	J
Selenium	< 0.0110	0.0200					0.006275	0	10	
Silver	< 0.00200	0.0200					-0.000001	0	10	

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:31					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653061	PrepDate: 29-Jun-2020	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	< 0.030	0.20								
2,4,5-Trichlorophenol	< 0.057	0.20								
2,4,6-Trichlorophenol	< 0.048	0.20								
2,4-Dichlorophenol	< 0.043	0.20								
2,4-Dimethylphenol	< 0.040	0.20								
2,4-Dinitrophenol	< 0.10	1.0								
2,4-Dinitrotoluene	< 0.058	0.20								
2,6-Dinitrotoluene	< 0.042	0.20								
2-Chloronaphthalene	< 0.021	0.20								
2-Chlorophenol	< 0.036	0.20								
2-Methylnaphthalene	< 0.019	0.10								
2-Methylphenol	< 0.045	0.20								
2-Nitroaniline	< 0.041	0.20								
2-Nitrophenol	< 0.034	0.20								
3&4-Methylphenol	< 0.036	0.20								
3,3'-Dichlorobenzidine	< 0.044	0.20								
3-Nitroaniline	< 0.049	0.20								
4,6-Dinitro-2-methylphenol	< 0.020	0.20								
4-Bromophenyl phenyl ether	< 0.051	0.20								
4-Chloro-3-methylphenol	< 0.032	0.20								
4-Chloroaniline	< 0.039	0.20								
4-Chlorophenyl phenyl ether	< 0.044	0.20								
4-Nitroaniline	< 0.035	0.20								
4-Nitrophenol	< 0.047	1.0								
Acenaphthene	< 0.027	0.10								
Acenaphthylene	< 0.015	0.10								
Anthracene	< 0.014	0.10								
Benz(a)anthracene	< 0.050	0.10								
Benzo(a)pyrene	< 0.020	0.10								
Benzo(b)fluoranthene	< 0.023	0.10								
Benzo(g,h,i)perylene	< 0.014	0.10								
Benzo(k)fluoranthene	< 0.019	0.10								
Benzyl alcohol	< 0.054	0.20								
Bis(2-chloroethoxy)methane	< 0.030	0.20								

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:31					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653061	PrepDate: 29-Jun-2020	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bis(2-chloroethyl)ether	< 0.026	0.20								
Bis(2-chloroisopropyl)ether	< 0.070	0.20								
Bis(2-ethylhexyl)phthalate	< 0.037	0.20								
Butyl benzyl phthalate	< 0.019	0.20								
Carbazole	< 0.025	0.20								
Chrysene	< 0.021	0.10								
Dibenz(a,h)anthracene	< 0.024	0.10								
Dibenzofuran	< 0.020	0.10								
Diethyl phthalate	< 0.030	0.20								
Dimethyl phthalate	< 0.041	0.20								
Di-n-butyl phthalate	< 0.020	0.20								
Di-n-octyl phthalate	< 0.020	0.20								
Fluoranthene	< 0.010	0.10								
Fluorene	< 0.030	0.10								
Hexachlorobenzene	< 0.044	0.20								
Hexachlorobutadiene	< 0.030	0.20								
Hexachlorocyclopentadiene	< 0.030	0.20								
Hexachloroethane	< 0.059	0.20								
Indeno(1,2,3-cd)pyrene	< 0.022	0.10								
Isophorone	< 0.025	0.20								
Naphthalene	< 0.020	0.10								
Nitrobenzene	< 0.024	0.20								
N-Nitrosodimethylamine	< 0.10	0.20								
N-Nitrosodi-n-propylamine	< 0.032	0.20								
N-Nitrosodiphenylamine	< 0.025	0.20								
Pentachlorophenol	< 0.079	0.20								
Phenanthrene	< 0.021	0.10								
Phenol	< 0.035	0.20								
Pyrene	< 0.019	0.10								
Pyridine	< 0.030	1.0								
Surr: 2,4,6-Tribromophenol	3.889	0.20	5	0	77.8	34 - 129				
Surr: 2-Fluorobiphenyl	3.236	0.20	5	0	64.7	40 - 125				
Surr: 2-Fluorophenol	3.549	0.20	5	0	71.0	20 - 120				
Surr: 4-Terphenyl-d14	3.578	0.20	5	0	71.6	40 - 135				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
MBLK	Sample ID: MBLK-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:31					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653061		PrepDate: 29-Jun-2020		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Surr: Nitrobenzene-d5	2.9	0.20	5	0	58.0	41 - 120				
Surr: Phenol-d6	3.733	0.20	5	0	74.7	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:50					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653062	PrepDate: 29-Jun-2020	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	3.081	0.20	5	0	61.6	45 - 120				
2,4,5-Trichlorophenol	3.428	0.20	5	0	68.6	46 - 120				
2,4,6-Trichlorophenol	3.095	0.20	5	0	61.9	42 - 120				
2,4-Dichlorophenol	3.15	0.20	5	0	63.0	49 - 120				
2,4-Dimethylphenol	3.13	0.20	5	0	62.6	35 - 120				
2,4-Dinitrophenol	3.205	1.0	5	0	64.1	15 - 120				
2,4-Dinitrotoluene	3.276	0.20	5	0	65.5	50 - 122				
2,6-Dinitrotoluene	3.375	0.20	5	0	67.5	50 - 120				
2-Chloronaphthalene	3.297	0.20	5	0	65.9	50 - 120				
2-Chlorophenol	3.019	0.20	5	0	60.4	40 - 120				
2-Methylnaphthalene	3.052	0.10	5	0	61.0	50 - 120				
2-Methylphenol	3.096	0.20	5	0	61.9	45 - 120				
2-Nitroaniline	3.683	0.20	5	0	73.7	28 - 139				
2-Nitrophenol	3.008	0.20	5	0	60.2	40 - 120				
3&4-Methylphenol	3.073	0.20	5	0	61.5	35 - 120				
3,3'-Dichlorobenzidine	5.363	0.20	5	0	107	15 - 120				
3-Nitroaniline	3.096	0.20	5	0	61.9	30 - 120				
4,6-Dinitro-2-methylphenol	3.253	0.20	5	0	65.1	25 - 121				
4-Bromophenyl phenyl ether	3.235	0.20	5	0	64.7	45 - 120				
4-Chloro-3-methylphenol	3.199	0.20	5	0	64.0	47 - 120				
4-Chloroaniline	3.11	0.20	5	0	62.2	20 - 120				
4-Chlorophenyl phenyl ether	3.264	0.20	5	0	65.3	50 - 120				
4-Nitroaniline	3.369	0.20	5	0	67.4	30 - 133				
4-Nitrophenol	3.434	1.0	5	0	68.7	30 - 130				
Acenaphthene	3.218	0.10	5	0	64.4	45 - 120				
Acenaphthylene	3.165	0.10	5	0	63.3	47 - 120				
Anthracene	3.2	0.10	5	0	64.0	45 - 120				
Benz(a)anthracene	3.465	0.10	5	0	69.3	40 - 120				
Benzo(a)pyrene	3.866	0.10	5	0	77.3	45 - 120				
Benzo(b)fluoranthene	4.188	0.10	5	0	83.8	50 - 120				
Benzo(g,h,i)perylene	4.037	0.10	5	0	80.7	42 - 127				
Benzo(k)fluoranthene	3.513	0.10	5	0	70.3	45 - 127				
Benzyl alcohol	3.083	0.20	5	0	61.7	35 - 122				
Bis(2-chloroethoxy)methane	4.113	0.20	5	0	82.3	45 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:50					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653062	PrepDate: 29-Jun-2020	DF: 1						
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bis(2-chloroethyl)ether	3.246	0.20	5	0	64.9	37 - 121				
Bis(2-chloroisopropyl)ether	2.827	0.20	5	0	56.5	40 - 120				
Bis(2-ethylhexyl)phthalate	3.671	0.20	5	0	73.4	40 - 139				
Butyl benzyl phthalate	3.399	0.20	5	0	68.0	47 - 123				
Carbazole	3.833	0.20	5	0	76.7	42 - 128				
Chrysene	3.181	0.10	5	0	63.6	43 - 120				
Dibenz(a,h)anthracene	4.103	0.10	5	0	82.1	45 - 125				
Dibenzofuran	3.248	0.10	5	0	65.0	50 - 120				
Diethyl phthalate	3.257	0.20	5	0	65.1	41 - 120				
Dimethyl phthalate	3.175	0.20	5	0	63.5	40 - 122				
Di-n-butyl phthalate	3.319	0.20	5	0	66.4	45 - 123				
Di-n-octyl phthalate	3.657	0.20	5	0	73.1	45 - 129				
Fluoranthene	3.452	0.10	5	0	69.0	45 - 125				
Fluorene	3.27	0.10	5	0	65.4	49 - 120				
Hexachlorobenzene	3.137	0.20	5	0	62.7	48 - 120				
Hexachlorobutadiene	3.079	0.20	5	0	61.6	40 - 120				
Hexachlorocyclopentadiene	2.591	0.20	5	0	51.8	34 - 136				
Hexachloroethane	3.03	0.20	5	0	60.6	40 - 120				
Indeno(1,2,3-cd)pyrene	4.084	0.10	5	0	81.7	41 - 128				
Isophorone	2.927	0.20	5	0	58.5	40 - 121				
Naphthalene	3.115	0.10	5	0	62.3	45 - 120				
Nitrobenzene	2.87	0.20	5	0	57.4	44 - 120				
N-Nitrosodimethylamine	2.582	0.20	5	0	51.6	30 - 121				
N-Nitrosodi-n-propylamine	2.843	0.20	5	0	56.9	40 - 120				
N-Nitrosodiphenylamine	3.125	0.20	5	0	62.5	40 - 125				
Pentachlorophenol	3.326	0.20	5	0	66.5	19 - 121				
Phenanthrene	3.188	0.10	5	0	63.8	45 - 121				
Phenol	2.973	0.20	5	0	59.5	20 - 124				
Pyrene	3.099	0.10	5	0	62.0	40 - 130				
Pyridine	2.816	1.0	5	0	56.3	15 - 120				
Surr: 2,4,6-Tribromophenol	3.938	0.20	5	0	78.8	34 - 129				
Surr: 2-Fluorobiphenyl	3.12	0.20	5	0	62.4	40 - 125				
Surr: 2-Fluorophenol	3.782	0.20	5	0	75.6	20 - 120				
Surr: 4-Terphenyl-d14	3.27	0.20	5	0	65.4	40 - 135				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCS	Sample ID: LCS-154949	Units: ug/L			Analysis Date: 06-Jul-2020 17:50					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653062		PrepDate: 29-Jun-2020		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
<i>Surr: Nitrobenzene-d5</i>	2.79	0.20	5	0	55.8	41 - 120				
<i>Surr: Phenol-d6</i>	3.486	0.20	5	0	69.7	20 - 120				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCSD		Sample ID: LCSD-154949		Units: ug/L		Analysis Date: 06-Jul-2020 18:10				
Client ID:		Run ID: SV-7_364584		SeqNo: 5653063		PrepDate: 29-Jun-2020		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	3.103	0.20	5	0	62.1	45 - 120	3.081	0.697	20	
2,4,5-Trichlorophenol	3.467	0.20	5	0	69.3	46 - 120	3.428	1.13	20	
2,4,6-Trichlorophenol	3.064	0.20	5	0	61.3	42 - 120	3.095	1.01	20	
2,4-Dichlorophenol	3.197	0.20	5	0	63.9	49 - 120	3.15	1.47	20	
2,4-Dimethylphenol	3.315	0.20	5	0	66.3	35 - 120	3.13	5.72	20	
2,4-Dinitrophenol	3.231	1.0	5	0	64.6	15 - 120	3.205	0.809	50	
2,4-Dinitrotoluene	3.188	0.20	5	0	63.8	50 - 122	3.276	2.71	20	
2,6-Dinitrotoluene	3.359	0.20	5	0	67.2	50 - 120	3.375	0.466	20	
2-Chloronaphthalene	3.253	0.20	5	0	65.1	50 - 120	3.297	1.36	20	
2-Chlorophenol	3.103	0.20	5	0	62.1	40 - 120	3.019	2.74	20	
2-Methylnaphthalene	3.114	0.10	5	0	62.3	50 - 120	3.052	2	20	
2-Methylphenol	3.143	0.20	5	0	62.9	45 - 120	3.096	1.51	20	
2-Nitroaniline	3.617	0.20	5	0	72.3	28 - 139	3.683	1.81	20	
2-Nitrophenol	3.028	0.20	5	0	60.6	40 - 120	3.008	0.64	20	
3&4-Methylphenol	3.194	0.20	5	0	63.9	35 - 120	3.073	3.88	20	
3,3'-Dichlorobenzidine	5.74	0.20	5	0	115	15 - 120	5.363	6.8	20	
3-Nitroaniline	3.337	0.20	5	0	66.7	30 - 120	3.096	7.51	20	
4,6-Dinitro-2-methylphenol	3.293	0.20	5	0	65.9	25 - 121	3.253	1.22	30	
4-Bromophenyl phenyl ether	3.212	0.20	5	0	64.2	45 - 120	3.235	0.712	20	
4-Chloro-3-methylphenol	3.191	0.20	5	0	63.8	47 - 120	3.199	0.241	20	
4-Chloroaniline	3.2	0.20	5	0	64.0	20 - 120	3.11	2.83	20	
4-Chlorophenyl phenyl ether	3.177	0.20	5	0	63.5	50 - 120	3.264	2.72	20	
4-Nitroaniline	3.298	0.20	5	0	66.0	30 - 133	3.369	2.12	20	
4-Nitrophenol	3.468	1.0	5	0	69.4	30 - 130	3.434	0.986	20	
Acenaphthene	3.125	0.10	5	0	62.5	45 - 120	3.218	2.92	20	
Acenaphthylene	3.138	0.10	5	0	62.8	47 - 120	3.165	0.869	20	
Anthracene	3.247	0.10	5	0	64.9	45 - 120	3.2	1.45	20	
Benz(a)anthracene	3.588	0.10	5	0	71.8	40 - 120	3.465	3.5	20	
Benzo(a)pyrene	3.741	0.10	5	0	74.8	45 - 120	3.866	3.28	20	
Benzo(b)fluoranthene	3.989	0.10	5	0	79.8	50 - 120	4.188	4.88	20	
Benzo(g,h,i)perylene	3.976	0.10	5	0	79.5	42 - 127	4.037	1.53	20	
Benzo(k)fluoranthene	3.468	0.10	5	0	69.4	45 - 127	3.513	1.3	20	
Benzyl alcohol	2.991	0.20	5	0	59.8	35 - 122	3.083	3.05	20	
Bis(2-chloroethoxy)methane	4.199	0.20	5	0	84.0	45 - 120	4.113	2.06	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCSD		Sample ID: LCSD-154949		Units: ug/L		Analysis Date: 06-Jul-2020 18:10				
Client ID:		Run ID: SV-7_364584		SeqNo: 5653063		PrepDate: 29-Jun-2020		DF: 1		
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Bis(2-chloroethyl)ether	3.734	0.20	5	0	74.7	37 - 121	3.246	14	20	
Bis(2-chloroisopropyl)ether	2.827	0.20	5	0	56.5	40 - 120	2.827	0	20	
Bis(2-ethylhexyl)phthalate	3.802	0.20	5	0	76.0	40 - 139	3.671	3.51	20	
Butyl benzyl phthalate	3.513	0.20	5	0	70.3	47 - 123	3.399	3.3	20	
Carbazole	3.797	0.20	5	0	75.9	42 - 128	3.833	0.963	20	
Chrysene	3.082	0.10	5	0	61.6	43 - 120	3.181	3.16	20	
Dibenz(a,h)anthracene	4.07	0.10	5	0	81.4	45 - 125	4.103	0.794	20	
Dibenzofuran	3.127	0.10	5	0	62.5	50 - 120	3.248	3.79	20	
Diethyl phthalate	3.128	0.20	5	0	62.6	41 - 120	3.257	4.06	20	
Dimethyl phthalate	3.109	0.20	5	0	62.2	40 - 122	3.175	2.1	20	
Di-n-butyl phthalate	3.408	0.20	5	0	68.2	45 - 123	3.319	2.66	20	
Di-n-octyl phthalate	3.68	0.20	5	0	73.6	45 - 129	3.657	0.631	20	
Fluoranthene	3.404	0.10	5	0	68.1	45 - 125	3.452	1.4	20	
Fluorene	3.234	0.10	5	0	64.7	49 - 120	3.27	1.1	20	
Hexachlorobenzene	3.067	0.20	5	0	61.3	48 - 120	3.137	2.26	20	
Hexachlorobutadiene	2.853	0.20	5	0	57.1	40 - 120	3.079	7.61	20	
Hexachlorocyclopentadiene	2.577	0.20	5	0	51.5	34 - 136	2.591	0.523	20	
Hexachloroethane	2.897	0.20	5	0	57.9	40 - 120	3.03	4.49	20	
Indeno(1,2,3-cd)pyrene	4.057	0.10	5	0	81.1	41 - 128	4.084	0.671	20	
Isophorone	3.027	0.20	5	0	60.5	40 - 121	2.927	3.36	20	
Naphthalene	3.041	0.10	5	0	60.8	45 - 120	3.115	2.39	20	
Nitrobenzene	2.939	0.20	5	0	58.8	44 - 120	2.87	2.38	20	
N-Nitrosodimethylamine	2.832	0.20	5	0	56.6	30 - 121	2.582	9.25	20	
N-Nitrosodi-n-propylamine	3.098	0.20	5	0	62.0	40 - 120	2.843	8.57	20	
N-Nitrosodiphenylamine	3.179	0.20	5	0	63.6	40 - 125	3.125	1.74	20	
Pentachlorophenol	3.41	0.20	5	0	68.2	19 - 121	3.326	2.49	20	
Phenanthrene	3.151	0.10	5	0	63.0	45 - 121	3.188	1.16	20	
Phenol	3.733	0.20	5	0	74.7	20 - 124	2.973	22.6	20 R	
Pyrene	3.251	0.10	5	0	65.0	40 - 130	3.099	4.8	20	
Pyridine	2.769	1.0	5	0	55.4	15 - 120	2.816	1.67	20	
Surr: 2,4,6-Tribromophenol	3.981	0.20	5	0	79.6	34 - 129	3.938	1.1	20	
Surr: 2-Fluorobiphenyl	3.033	0.20	5	0	60.7	40 - 125	3.12	2.84	20	
Surr: 2-Fluorophenol	3.974	0.20	5	0	79.5	20 - 120	3.782	4.97	20	
Surr: 4-Terphenyl-d14	3.329	0.20	5	0	66.6	40 - 135	3.27	1.78	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 154949 (1)		Instrument: SV-7		Method: LOW-LEVEL SEMIVOLATILES BY 8270D						
LCSD	Sample ID: LCSD-154949	Units: ug/L			Analysis Date: 06-Jul-2020 18:10					
Client ID:	Run ID: SV-7_364584	SeqNo: 5653063		PrepDate: 29-Jun-2020		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

<i>Surr: Nitrobenzene-d5</i>	2.802	0.20	5	0	56.0	41 - 120	2.79	0.438	20	
<i>Surr: Phenol-d6</i>	4.335	0.20	5	0	86.7	20 - 120	3.486	21.7	20	R

The following samples were analyzed in this batch:

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0)		Instrument: VOA9		Method: LOW LEVEL VOLATILES BY SW8260C						
MBLK	Sample ID: VBLKW-200702	Units: ug/L			Analysis Date: 02-Jul-2020 12:56					
Client ID:	Run ID: VOA9_364448	SeqNo: 5649032	PrepDate:	DF: 1						
Analyte	Result	SQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	< 0.20	1.0								
1,1,2,2-Tetrachloroethane	< 0.50	1.0								
1,1,2-Trichloroethane	< 0.30	1.0								
1,1-Dichloroethane	< 0.20	1.0								
1,1-Dichloroethene	< 0.20	1.0								
1,2-Dichlorobenzene	< 0.50	1.0								
1,2-Dichloroethane	< 0.20	1.0								
1,2-Dichloropropane	< 0.50	1.0								
1,3-Dichlorobenzene	< 0.40	1.0								
1,4-Dichlorobenzene	< 0.40	1.0								
2-Butanone	< 0.50	2.0								
2-Hexanone	< 1.0	2.0								
4-Methyl-2-pentanone	< 0.70	2.0								
Acetone	< 2.0	2.0								
Benzene	< 0.20	1.0								
Bromochloromethane	< 0.20	1.0								
Bromodichloromethane	< 0.20	1.0								
Bromoform	< 0.40	1.0								
Bromomethane	< 0.40	1.0								
Carbon disulfide	< 0.60	2.0								
Carbon tetrachloride	< 0.50	1.0								
Chlorobenzene	< 0.30	1.0								
Chloroethane	< 0.30	1.0								
Chloroform	< 0.20	1.0								
Chloromethane	< 0.20	1.0								
cis-1,2-Dichloroethene	< 0.20	1.0								
cis-1,3-Dichloropropene	< 0.10	1.0								
Dibromochloromethane	< 0.30	1.0								
Ethylbenzene	< 0.30	1.0								
m,p-Xylene	< 0.50	2.0								
Methylene chloride	< 1.0	2.0								
o-Xylene	< 0.30	1.0								
Styrene	< 0.30	1.0								
Tetrachloroethene	< 0.30	1.0								

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0) **Instrument:** VOA9 **Method:** LOW LEVEL VOLATILES BY SW8260C

MBLK Sample ID: **VBLKW-200702** Units: **ug/L** Analysis Date: **02-Jul-2020 12:56**
 Client ID: Run ID: **VOA9_364448** SeqNo: **5649032** PrepDate: DF: **1**
 Analyte Result MQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Toluene	< 0.20	1.0								
trans-1,2-Dichloroethene	< 0.20	1.0								
trans-1,3-Dichloropropene	< 0.20	1.0								
Trichloroethene	< 0.20	1.0								
Vinyl acetate	< 0.50	1.0								
Vinyl chloride	< 0.20	1.0								
Xylenes, Total	< 0.30	1.0								
1,2-Dichloroethene, Total	< 0.20	1.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.18</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.4</i>	<i>70 - 123</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>48.38</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>96.8</i>	<i>82 - 115</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.28</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.6</i>	<i>73 - 126</i>				
<i>Surr: Toluene-d8</i>	<i>50.72</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>81 - 120</i>				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0)		Instrument: VOA9		Method: LOW LEVEL VOLATILES BY SW8260C						
LCS		Sample ID: VLCSW-200702		Units: ug/L		Analysis Date: 02-Jul-2020 12:07				
Client ID:		Run ID: VOA9_364448		SeqNo: 5649031		PrepDate:		DF: 1		
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.76	1.0	20	0	98.8	70 - 130				
1,1,2,2-Tetrachloroethane	18.98	1.0	20	0	94.9	70 - 120				
1,1,2-Trichloroethane	20.12	1.0	20	0	101	77 - 113				
1,1-Dichloroethane	19.08	1.0	20	0	95.4	71 - 122				
1,1-Dichloroethene	19.35	1.0	20	0	96.8	70 - 130				
1,2-Dichlorobenzene	19.81	1.0	20	0	99.0	77 - 113				
1,2-Dichloroethane	19.24	1.0	20	0	96.2	70 - 124				
1,2-Dichloropropane	19.51	1.0	20	0	97.5	72 - 119				
1,3-Dichlorobenzene	19.69	1.0	20	0	98.5	78 - 118				
1,4-Dichlorobenzene	19.6	1.0	20	0	98.0	79 - 113				
2-Butanone	41.6	2.0	40	0	104	70 - 130				
2-Hexanone	40.62	2.0	40	0	102	70 - 130				
4-Methyl-2-pentanone	39.14	2.0	40	0	97.9	70 - 130				
Acetone	70.35	2.0	40	0	176	70 - 130				S
Benzene	19.49	1.0	20	0	97.4	74 - 120				
Bromochloromethane	19.47	1.0	20	0	97.4	76 - 124				
Bromodichloromethane	19.51	1.0	20	0	97.5	74 - 122				
Bromoform	20.25	1.0	20	0	101	73 - 128				
Bromomethane	23.6	1.0	20	0	118	70 - 130				
Carbon disulfide	39.68	2.0	40	0	99.2	70 - 130				
Carbon tetrachloride	19.3	1.0	20	0	96.5	71 - 125				
Chlorobenzene	19.6	1.0	20	0	98.0	76 - 113				
Chloroethane	19.62	1.0	20	0	98.1	70 - 130				
Chloroform	19.23	1.0	20	0	96.2	71 - 121				
Chloromethane	21.5	1.0	20	0	107	70 - 129				
cis-1,2-Dichloroethene	19.84	1.0	20	0	99.2	75 - 122				
cis-1,3-Dichloropropene	19.9	1.0	20	0	99.5	73 - 127				
Dibromochloromethane	20.46	1.0	20	0	102	77 - 122				
Ethylbenzene	19.98	1.0	20	0	99.9	77 - 117				
m,p-Xylene	40.77	2.0	40	0	102	77 - 122				
Methylene chloride	18.77	2.0	20	0	93.8	70 - 127				
o-Xylene	20.19	1.0	20	0	101	75 - 119				
Styrene	20.99	1.0	20	0	105	72 - 126				
Tetrachloroethene	18.75	1.0	20	0	93.7	76 - 119				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0) **Instrument:** VOA9 **Method:** LOW LEVEL VOLATILES BY SW8260C

LCS		Sample ID: VLCSW-200702			Units: ug/L		Analysis Date: 02-Jul-2020 12:07			
Client ID:		Run ID: VOA9_364448			SeqNo: 5649031		PrepDate:		DF: 1	
Analyte	Result	MLL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	19.79	1.0	20	0	99.0	77 - 118				
trans-1,2-Dichloroethene	19.9	1.0	20	0	99.5	72 - 127				
trans-1,3-Dichloropropene	18.57	1.0	20	0	92.9	77 - 119				
Trichloroethene	19.71	1.0	20	0	98.5	77 - 121				
Vinyl acetate	39.55	1.0	40	0	98.9	70 - 130				
Vinyl chloride	19.66	1.0	20	0	98.3	70 - 130				
Xylenes, Total	60.96	1.0	60	0	102	75 - 122				
1,2-Dichloroethene, Total	39.74	1.0	40	0	99.4	72 - 127				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.77</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>95.5</i>	<i>70 - 130</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.43</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>82 - 115</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.35</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.7</i>	<i>73 - 126</i>				
<i>Surr: Toluene-d8</i>	<i>50.14</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>81 - 120</i>				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0)		Instrument: VOA9		Method: LOW LEVEL VOLATILES BY SW8260C						
MS	Sample ID: HS20061256-14MS	Units: ug/L			Analysis Date: 02-Jul-2020 14:37					
Client ID:	Run ID: VOA9_364448	SeqNo: 5649036	PrepDate:	DF: 1						
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.14	1.0	20	0	111	70 - 130				
1,1,2,2-Tetrachloroethane	20.55	1.0	20	0	103	70 - 123				
1,1,2-Trichloroethane	21.28	1.0	20	0	106	70 - 117				
1,1-Dichloroethane	20.93	1.0	20	0	105	70 - 127				
1,1-Dichloroethene	21.71	1.0	20	0	109	70 - 130				
1,2-Dichlorobenzene	21.21	1.0	20	0	106	70 - 115				
1,2-Dichloroethane	20.39	1.0	20	0	102	70 - 127				
1,2-Dichloropropane	21.11	1.0	20	0	106	70 - 122				
1,3-Dichlorobenzene	21.34	1.0	20	0	107	70 - 119				
1,4-Dichlorobenzene	21.02	1.0	20	0	105	70 - 114				
2-Butanone	39.18	2.0	40	0	98.0	70 - 130				
2-Hexanone	43.24	2.0	40	0	108	70 - 130				
4-Methyl-2-pentanone	41.61	2.0	40	0	104	70 - 130				
Acetone	15.89	2.0	40	0	39.7	70 - 130				S
Benzene	21.53	1.0	20	0	108	70 - 127				
Bromochloromethane	20.65	1.0	20	0	103	70 - 127				
Bromodichloromethane	21.48	1.0	20	0	107	70 - 124				
Bromoform	21.53	1.0	20	0	108	70 - 129				
Bromomethane	23.08	1.0	20	0	115	70 - 130				
Carbon disulfide	43.33	2.0	40	0	108	70 - 130				
Carbon tetrachloride	22.31	1.0	20	0	112	70 - 130				
Chlorobenzene	21.72	1.0	20	0	109	70 - 114				
Chloroethane	20.85	1.0	20	0	104	70 - 130				
Chloroform	21.02	1.0	20	0	105	70 - 125				
Chloromethane	20.98	1.0	20	0	105	70 - 130				
cis-1,2-Dichloroethene	21.81	1.0	20	0	109	70 - 128				
cis-1,3-Dichloropropene	21.1	1.0	20	0	106	70 - 125				
Dibromochloromethane	22.05	1.0	20	0	110	70 - 124				
Ethylbenzene	22.32	1.0	20	0	112	70 - 124				
m,p-Xylene	46.06	2.0	40	0	115	70 - 130				
Methylene chloride	20.59	2.0	20	0	103	70 - 128				
o-Xylene	22.67	1.0	20	0	113	70 - 124				
Styrene	22.46	1.0	20	0	112	70 - 130				
Tetrachloroethene	23.47	1.0	20	0	117	70 - 130				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0) **Instrument:** VOA9 **Method:** LOW LEVEL VOLATILES BY SW8260C

MS		Sample ID: HS20061256-14MS			Units: ug/L		Analysis Date: 02-Jul-2020 14:37			
Client ID:		Run ID: VOA9_364448			SeqNo: 5649036		PrepDate:		DF: 1	
Analyte	Result	MLL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	22.16	1.0	20	0	111	70 - 123				
trans-1,2-Dichloroethene	21.71	1.0	20	0	109	70 - 130				
trans-1,3-Dichloropropene	20.21	1.0	20	0	101	70 - 121				
Trichloroethene	22.36	1.0	20	0	112	70 - 129				
Vinyl acetate	39.89	1.0	40	0	99.7	70 - 130				
Vinyl chloride	19.76	1.0	20	0	98.8	70 - 130				
Xylenes, Total	68.73	1.0	60	0	115	70 - 130				
1,2-Dichloroethene, Total	43.52	1.0	40	0	109	70 - 130				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>48.05</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>96.1</i>	<i>70 - 126</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>51</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>81 - 113</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.72</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>99.4</i>	<i>77 - 123</i>				
<i>Surr: Toluene-d8</i>	<i>50.26</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>82 - 127</i>				

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0)		Instrument: VOA9		Method: LOW LEVEL VOLATILES BY SW8260C						
MSD	Sample ID: HS20061256-14MSD	Units: ug/L			Analysis Date: 02-Jul-2020 15:01					
Client ID:	Run ID: VOA9_364448	SeqNo: 5649037	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.6	1.0	20	0	108	70 - 130	22.14	2.47	20	
1,1,2,2-Tetrachloroethane	21.66	1.0	20	0	108	70 - 123	20.55	5.23	20	
1,1,2-Trichloroethane	21.36	1.0	20	0	107	70 - 117	21.28	0.381	20	
1,1-Dichloroethane	20.57	1.0	20	0	103	70 - 127	20.93	1.74	20	
1,1-Dichloroethene	20.88	1.0	20	0	104	70 - 130	21.71	3.89	20	
1,2-Dichlorobenzene	21.95	1.0	20	0	110	70 - 115	21.21	3.43	20	
1,2-Dichloroethane	20.43	1.0	20	0	102	70 - 127	20.39	0.195	20	
1,2-Dichloropropane	21.37	1.0	20	0	107	70 - 122	21.11	1.24	20	
1,3-Dichlorobenzene	22.05	1.0	20	0	110	70 - 119	21.34	3.26	20	
1,4-Dichlorobenzene	21.44	1.0	20	0	107	70 - 114	21.02	1.97	20	
2-Butanone	39.63	2.0	40	0	99.1	70 - 130	39.18	1.12	20	
2-Hexanone	42.41	2.0	40	0	106	70 - 130	43.24	1.94	20	
4-Methyl-2-pentanone	42.37	2.0	40	0	106	70 - 130	41.61	1.8	20	
Acetone	16.56	2.0	40	0	41.4	70 - 130	15.89	4.11	20	S
Benzene	21.3	1.0	20	0	106	70 - 127	21.53	1.09	20	
Bromochloromethane	20.67	1.0	20	0	103	70 - 127	20.65	0.0581	20	
Bromodichloromethane	21.3	1.0	20	0	106	70 - 124	21.48	0.838	20	
Bromoform	21.88	1.0	20	0	109	70 - 129	21.53	1.6	20	
Bromomethane	22.59	1.0	20	0	113	70 - 130	23.08	2.16	20	
Carbon disulfide	43.14	2.0	40	0	108	70 - 130	43.33	0.433	20	
Carbon tetrachloride	21.82	1.0	20	0	109	70 - 130	22.31	2.25	20	
Chlorobenzene	21.65	1.0	20	0	108	70 - 114	21.72	0.319	20	
Chloroethane	20.35	1.0	20	0	102	70 - 130	20.85	2.39	20	
Chloroform	20.23	1.0	20	0	101	70 - 125	21.02	3.83	20	
Chloromethane	19.22	1.0	20	0	96.1	70 - 130	20.98	8.75	20	
cis-1,2-Dichloroethene	21.01	1.0	20	0	105	70 - 128	21.81	3.76	20	
cis-1,3-Dichloropropene	21.75	1.0	20	0	109	70 - 125	21.1	3.01	20	
Dibromochloromethane	21.74	1.0	20	0	109	70 - 124	22.05	1.42	20	
Ethylbenzene	22.45	1.0	20	0	112	70 - 124	22.32	0.559	20	
m,p-Xylene	45.54	2.0	40	0	114	70 - 130	46.06	1.15	20	
Methylene chloride	21.02	2.0	20	0	105	70 - 128	20.59	2.04	20	
o-Xylene	22.47	1.0	20	0	112	70 - 124	22.67	0.869	20	
Styrene	22.14	1.0	20	0	111	70 - 130	22.46	1.45	20	
Tetrachloroethene	21.61	1.0	20	0	108	70 - 130	23.47	8.24	20	

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364448 (0)		Instrument: VOA9		Method: LOW LEVEL VOLATILES BY SW8260C						
MSD	Sample ID: HS20061256-14MSD	Units: ug/L			Analysis Date: 02-Jul-2020 15:01					
Client ID:	Run ID: VOA9_364448	SeqNo: 5649037		PrepDate:		DF: 1				
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Toluene	21.74	1.0	20	0	109	70 - 123	22.16	1.9	20	
trans-1,2-Dichloroethene	21.08	1.0	20	0	105	70 - 130	21.71	2.93	20	
trans-1,3-Dichloropropene	20.21	1.0	20	0	101	70 - 121	20.21	0.00591	20	
Trichloroethene	22.5	1.0	20	0	113	70 - 129	22.36	0.619	20	
Vinyl acetate	39.27	1.0	40	0	98.2	70 - 130	39.89	1.55	20	
Vinyl chloride	18.92	1.0	20	0	94.6	70 - 130	19.76	4.33	20	
Xylenes, Total	68.01	1.0	60	0	113	70 - 130	68.73	1.06	20	
1,2-Dichloroethene, Total	42.09	1.0	40	0	105	70 - 130	43.52	3.34	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>47.58</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>70 - 126</i>	<i>48.05</i>	<i>0.973</i>	<i>20</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.86</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>99.7</i>	<i>81 - 113</i>	<i>51</i>	<i>2.27</i>	<i>20</i>	
<i>Surr: Dibromofluoromethane</i>	<i>49.46</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.9</i>	<i>77 - 123</i>	<i>49.72</i>	<i>0.52</i>	<i>20</i>	
<i>Surr: Toluene-d8</i>	<i>50.18</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>82 - 127</i>	<i>50.26</i>	<i>0.169</i>	<i>20</i>	

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: 155171 (0) **Instrument:** UV-2450 **Method:** CYANIDE - SW9014

MBLK	Sample ID: MBLK-155171	Units: mg/L			Analysis Date: 02-Jul-2020 14:30				
Client ID:		Run ID: UV-2450_364571	SeqNo: 5651745	PrepDate: 02-Jul-2020	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Cyanide < 0.00200 0.00500

LCS	Sample ID: LCS-155171	Units: mg/L			Analysis Date: 02-Jul-2020 14:30				
Client ID:		Run ID: UV-2450_364571	SeqNo: 5651744	PrepDate: 02-Jul-2020	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Cyanide 0.202 0.00500 0.2 0 101 80 - 120

MS	Sample ID: HS20061475-01MS	Units: mg/L			Analysis Date: 02-Jul-2020 14:30				
Client ID:		Run ID: UV-2450_364571	SeqNo: 5651742	PrepDate: 02-Jul-2020	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Cyanide 0.174 0.00500 0.2 0.008 83.0 80 - 120

MSD	Sample ID: HS20061475-01MSD	Units: mg/L			Analysis Date: 02-Jul-2020 14:30				
Client ID:		Run ID: UV-2450_364571	SeqNo: 5651743	PrepDate: 02-Jul-2020	DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Cyanide 0.17 0.00500 0.2 0.008 81.0 80 - 120 0.174 2.33 20

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364165 (0)		Instrument: WetChem_HS		Method: FLASH POINT BY PENSKY-MARTENS SW1010A						
LCS	Sample ID: LCS-R364165	Units: °F			Analysis Date: 29-Jun-2020 08:00					
Client ID:	Run ID: WetChem_HS_364165	SeqNo: 5642640	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ignitability	80.61	70.0	81	0	99.5	95 - 105				
DUP	Sample ID: HS20061366-01DUP	Units: °F			Analysis Date: 29-Jun-2020 08:00					
Client ID: WW-1620-GW Drum-20200625	Run ID: WetChem_HS_364165	SeqNo: 5642641	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ignitability	> 212	70.0					0	0	20	

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364362 (0)	Instrument: WetChem_HS	Method: SULFIDE BY SM4500 S2-F
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MBLK	Sample ID: MBLK-R364362	Units: mg/L	Analysis Date: 01-Jul-2020 17:00							
Client ID:	Run ID: WetChem_HS_364362	SeqNo: 5647175	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide < 1.00 1.00

LCS	Sample ID: LCS-R364362	Units: mg/L	Analysis Date: 01-Jul-2020 17:00							
Client ID:	Run ID: WetChem_HS_364362	SeqNo: 5647174	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 24.08 1.00 25 0 96.3 85 - 115

LCSD	Sample ID: LCSD-R364362	Units: mg/L	Analysis Date: 01-Jul-2020 17:00							
Client ID:	Run ID: WetChem_HS_364362	SeqNo: 5647173	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 23.88 1.00 25 0 95.5 85 - 115 24.08 0.834 20

MS	Sample ID: HS20061366-01MS	Units: mg/L	Analysis Date: 01-Jul-2020 17:00							
Client ID: WW-1620-GW Drum-20200625	Run ID: WetChem_HS_364362	SeqNo: 5647176	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Sulfide 22.08 1.00 25 0.68 85.6 80 - 120

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

QC BATCH REPORT

Batch ID: R364629 (0)		Instrument: WetChem_HS		Method: PH BY SM4500H+ B						
DUP	Sample ID: HS20061004-07DUP	Units: pH Units			Analysis Date: 07-Jul-2020 13:33					
Client ID:	Run ID: WetChem_HS_364629	SeqNo: 5652919		PrepDate:			DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH	7.09	0.100					7.08	0.141	10	
Temp Deg C @pH	23.3	0					23	1.3	10	

The following samples were analyzed in this batch: HS20061366-01

Client: Golder Associates Inc.
Project: Houston TX-Wood Preserving Works IDW
WorkOrder: HS20061366

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not 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 detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
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/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	20-030-0	26-Mar-2021
Dept of Defense	ANAB L2231 V009	22-Dec-2021
Illinois	2000322020-4	09-May-2021
Kansas	E-10352 2019-2020	31-Jul-2020
North Carolina	624-2020	31-Dec-2020
Oklahoma	2019-141	31-Aug-2020
Texas	T104704231-20-26	30-Apr-2021

Sample Receipt Checklist

Work Order ID: HS20061366

Date/Time Received: 26-Jun-2020 14:15

Client Name: PBW

Received by: Patrick Salome

Completed By: <u>/S/ Jared R. Makan</u>	27-Jun-2020 12:09	Reviewed by:		
eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water**

Carrier name: **ALS Courier**

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes No Not Present
- Chain of custody present? Yes No 1 Page(s)
- Chain of custody signed when relinquished and received? Yes No COC IDs:218625
- Samplers name present on COC? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s): 1.2°C/1.2°C UC/C IR25

Cooler(s)/Kit(s): 46141

Date/Time sample(s) sent to storage: 06/27/2020 12:09

Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:



Cincinnati, OH
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Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 218625

HS20061366

Golder Associates Inc.
Houston TX-Wood Preserving Works



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Customer Information		Project Information		ALS Project Manager:											
Purchase Order	UPRR/Kevin Peterburs	Project Name	Houston TX-Wood Preserving Works	A	8260 LL W (5632528 Volatile Organics)										
Work Order		Project Number	1620-21-Rev0 SR 92688 (IDWW)	B	TX1005 W Low (5643233 TPH TX1005)										
Company Name	Golder Associates Inc.	Bill To Company	Union Pacific Railroad- A/P	C	8270 LOW W (5632532 SemiVolatiles (w/pyridine))										
Send Report To	Eric Matzner	Invoice Attn	Accounts Payable	D	ICP_TW (5652643 5652646 RCRA 8+3 Metals)										
Address	2201 Double Creek Drive Suite 4004	Address	1400 Douglas Street Stop 0750	E	CN_TW_9014 (5632370 Cyanide - RCI IDWW)										
				F	SULFD_4500S F (5636267 Sulfide - RCI)										
City/State/Zip	Round Rock, TX 78664	City/State/Zip	Omaha NE 681790750	G	pH_W_9040C (5632436 pH - RCI)										
Phone	(512) 671-3434	Phone		H	IGN_W (5652637 Ignitability - RCI)										
Fax	(512) 671-3446	Fax		I											
e-Mail Address	Eric_Matzner@golder.com	e-Mail Address		J											


No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WW-1620- FW <i>FW from 2020 0625</i>	<i>6-25-2020</i>	<i>9:00</i>	Water	1,2,4,7,8	12	X	X	X	X	X	X	X	X			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Tim Spalden T. M. Spalden</i>		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
<input checked="" type="checkbox"/> STD 10 Wk Days		<input type="checkbox"/> 5 Wk Days		<input type="checkbox"/> 2 Wk Days		<input type="checkbox"/> 24 Hour			
Relinquished by: <i>Tim Spalden</i>	Date: <i>6-26-20</i>	Time: <i>9:00</i>	Received by: <i>Kevin Peterburs</i>	Notes: UPRR HWPW 1620-21					
Relinquished by: <i>Kevin Peterburs</i>	Date: <i>6-26-20</i>	Time: <i>4:15</i>	Received by (Laboratory): <i>Kevin Peterburs</i>	Cooler ID: <i>46/41</i>	Cooler Temp.: <i>10.2</i>	QC Package: (Check One Box Below)			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	<input checked="" type="checkbox"/> Level II Std OC	<input type="checkbox"/> TRRP Checklist	<input type="checkbox"/> Level III Std QC/Raw Data		<input type="checkbox"/> TRRP Level IV	
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 9-5035				<input type="checkbox"/> Level IV SW846/CLP		<input type="checkbox"/> Other			

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

SR 25 CLP

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 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>NY</i>
	Date: <i>6-25-20</i>	Time: <i>11:00</i>	Date:
	Name: <i>T. M. M. M. M. M.</i>	Company: <i>Golden</i>	<i>06/26/20</i>

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