ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Work Order: HS18061286

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18061286-01	USOR-LS#1-01-180625	Sludge		25-Jun-2018 13:50	25-Jun-2018 18:45	☐
HS18061286-02	USOR-GT-01-180625	Sludge		25-Jun-2018 15:10	25-Jun-2018 18:45	☐
HS18061286-03	USOR-GT-02-180625	Sludge		25-Jun-2018 15:15	25-Jun-2018 18:45	☐
HS18061286-04	USOR-DUP-02-180625	Sludge		25-Jun-2018 00:00	25-Jun-2018 18:45	☐

9987302

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		**Method:SW1311/8260B**		Leache:SW1311 / 28-Jun-2018	Prep:SW1311 / 28-Jun-2018		Analyst: PC
1,1-Dichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:31
1,2-Dichloroethane	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:31
1,4-Dichlorobenzene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:31
2-Butanone	< 0.020		0.020	0.20	mg/L	20	03-Jul-2018 03:31
Benzene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:31
Carbon tetrachloride	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:31
Chlorobenzene	< 0.0080		0.0080	0.10	mg/L	20	03-Jul-2018 03:31
Chloroform	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:31
Tetrachloroethene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:31
Trichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:31
Vinyl chloride	< 0.0080		0.0080	0.040	mg/L	20	03-Jul-2018 03:31
Surr: 1,2-Dichloroethane-d4	*88.4*			*70-126*	*%REC*	*20*	*03-Jul-2018 03:31*
Surr: 4-Bromofluorobenzene	*103*			*82-124*	*%REC*	*20*	*03-Jul-2018 03:31*
Surr: Dibromofluoromethane	*104*			*77-123*	*%REC*	*20*	*03-Jul-2018 03:31*
Surr: Toluene-d8	*105*			*82-127*	*%REC*	*20*	*03-Jul-2018 03:31*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
1,1,1-Trichloroethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
1,1,2,2-Tetrachloroethane	< 0.0077		0.0077	0.048	mg/Kg	10	02-Jul-2018 13:00
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.0067		0.0067	0.048	mg/Kg	10	02-Jul-2018 13:00
1,1,2-Trichloroethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
1,1-Dichloroethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2,4-Trichlorobenzene	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2-Dibromo-3-chloropropane	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2-Dibromoethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2-Dichlorobenzene	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2-Dichloroethane	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
1,2-Dichloropropane	< 0.0077		0.0077	0.048	mg/Kg	10	02-Jul-2018 13:00
1,3-Dichlorobenzene	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
1,4-Dichlorobenzene	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
2-Butanone	< 0.012		0.012	0.096	mg/Kg	10	02-Jul-2018 13:00
2-Chloroethyl vinyl ether	< 0.019		0.019	0.096	mg/Kg	10	02-Jul-2018 13:00
2-Hexanone	< 0.013		0.013	0.096	mg/Kg	10	02-Jul-2018 13:00
4-Methyl-2-pentanone	< 0.019		0.019	0.096	mg/Kg	10	02-Jul-2018 13:00
Acetone	**0.13**	J	**0.019**	**0.19**	**mg/Kg**	10	02-Jul-2018 13:00
Acrolein	< 0.019		0.019	0.19	mg/Kg	10	02-Jul-2018 13:00
Acrylonitrile	< 0.023		0.023	0.096	mg/Kg	10	02-Jul-2018 13:00
Benzene	**0.27**		**0.0048**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
Bromodichloromethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
Bromoform	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
Bromomethane	< 0.0096		0.0096	0.096	mg/Kg	10	02-Jul-2018 13:00
Carbon disulfide	< 0.0058		0.0058	0.096	mg/Kg	10	02-Jul-2018 13:00
Carbon tetrachloride	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
Chlorobenzene	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
Chloroethane	< 0.0077		0.0077	0.096	mg/Kg	10	02-Jul-2018 13:00
Chloroform	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
Chloromethane	< 0.0048		0.0048	0.096	mg/Kg	10	02-Jul-2018 13:00
cis-1,2-Dichloroethene	< 0.0077		0.0077	0.048	mg/Kg	10	02-Jul-2018 13:00
cis-1,3-Dichloropropene	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
Cyclohexane	< 0.0096	n	0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
Dibromochloromethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
Dichlorodifluoromethane	< 0.0067		0.0067	0.048	mg/Kg	10	02-Jul-2018 13:00
Ethylbenzene	**0.032**	J	**0.0067**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
Isopropylbenzene	**0.42**		**0.0086**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
m,p-Xylene	**1.7**		**0.015**	**0.096**	**mg/Kg**	10	02-Jul-2018 13:00

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Methyl acetate	< 0.0067		0.0067	0.048	mg/Kg	10	02-Jul-2018 13:00
Methyl tert-butyl ether	**0.054**		**0.0048**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
Methylcyclohexane	< 0.0096		0.0096	0.048	mg/Kg	10	02-Jul-2018 13:00
Methylene chloride	< 0.0096		0.0096	0.096	mg/Kg	10	02-Jul-2018 13:00
o-Xylene	**0.096**		**0.0096**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
Styrene	< 0.0067		0.0067	0.048	mg/Kg	10	02-Jul-2018 13:00
Tetrachloroethene	< 0.0067		0.0067	0.048	mg/Kg	10	02-Jul-2018 13:00
Toluene	**0.018**	J	**0.0058**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
trans-1,2-Dichloroethene	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
trans-1,3-Dichloropropene	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
Trichloroethene	< 0.0058		0.0058	0.048	mg/Kg	10	02-Jul-2018 13:00
Trichlorofluoromethane	< 0.0048		0.0048	0.048	mg/Kg	10	02-Jul-2018 13:00
Vinyl chloride	< 0.0077		0.0077	0.019	mg/Kg	10	02-Jul-2018 13:00
Xylenes, Total	**1.8**		**0.0096**	**0.048**	**mg/Kg**	10	02-Jul-2018 13:00
Surr: 1,2-Dichloroethane-d4	*84.1*			*70-126*	*%REC*	*10*	*02-Jul-2018 13:00*
Surr: 4-Bromofluorobenzene	*94.6*			*70-130*	*%REC*	*10*	*02-Jul-2018 13:00*
Surr: Dibromofluoromethane	*91.3*			*70-130*	*%REC*	*10*	*02-Jul-2018 13:00*
Surr: Toluene-d8	*97.1*			*70-130*	*%REC*	*10*	*02-Jul-2018 13:00*
TCLP SEMIVOLATILES		**Method:SW1311/8270**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510 / 29-Jun-2018		Analyst: SGA
2,4,5-Trichlorophenol	< 0.00092		0.00092	0.0051	mg/L	1	29-Jun-2018 18:58
2,4,6-Trichlorophenol	< 0.0014		0.0014	0.0051	mg/L	1	29-Jun-2018 18:58
2,4-Dinitrotoluene	< 0.0010		0.0010	0.0051	mg/L	1	29-Jun-2018 18:58
Cresols, Total	< 0.0020		0.0020	0.015	mg/L	1	29-Jun-2018 18:58
Hexachlorobenzene	< 0.0011		0.0011	0.0051	mg/L	1	29-Jun-2018 18:58
Hexachlorobutadiene	< 0.0011		0.0011	0.0051	mg/L	1	29-Jun-2018 18:58
Hexachloroethane	< 0.0010		0.0010	0.0051	mg/L	1	29-Jun-2018 18:58
Nitrobenzene	< 0.00082		0.00082	0.0051	mg/L	1	29-Jun-2018 18:58
Pentachlorophenol	< 0.0016		0.0016	0.0051	mg/L	1	29-Jun-2018 18:58
Pyridine	< 0.0020		0.0020	0.0051	mg/L	1	29-Jun-2018 18:58
Surr: 2,4,6-Tribromophenol	*125*			*39-153*	*%REC*	*1*	*29-Jun-2018 18:58*
Surr: 2-Fluorobiphenyl	*80.7*			*40-147*	*%REC*	*1*	*29-Jun-2018 18:58*
Surr: 2-Fluorophenol	*77.7*			*21-110*	*%REC*	*1*	*29-Jun-2018 18:58*
Surr: 4-Terphenyl-d14	*100*			*39-141*	*%REC*	*1*	*29-Jun-2018 18:58*
Surr: Nitrobenzene-d5	*70.6*			*37-140*	*%REC*	*1*	*29-Jun-2018 18:58*
Surr: Phenol-d6	*89.3*			*11-110*	*%REC*	*1*	*29-Jun-2018 18:58*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
1,1´-Biphenyl	< 0.034		0.034	0.13	mg/Kg	10	02-Jul-2018 19:11
1,2-Diphenylhydrazine	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
2,4,5-Trichlorophenol	< 0.050		0.050	0.13	mg/Kg	10	02-Jul-2018 19:11
2,4,6-Trichlorophenol	< 0.034		0.034	0.13	mg/Kg	10	02-Jul-2018 19:11
2,4-Dichlorophenol	< 0.026		0.026	0.13	mg/Kg	10	02-Jul-2018 19:11
2,4-Dimethylphenol	< 0.066		0.066	0.13	mg/Kg	10	02-Jul-2018 19:11
2,4-Dinitrophenol	< 0.090		0.090	0.26	mg/Kg	10	02-Jul-2018 19:11
2,4-Dinitrotoluene	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11
2,6-Dinitrotoluene	< 0.066		0.066	0.13	mg/Kg	10	02-Jul-2018 19:11
2-Chloronaphthalene	< 0.026		0.026	0.13	mg/Kg	10	02-Jul-2018 19:11
2-Chlorophenol	< 0.026		0.026	0.13	mg/Kg	10	02-Jul-2018 19:11
2-Methylnaphthalene	**0.084**		**0.010**	**0.066**	**mg/Kg**	10	02-Jul-2018 19:11
2-Methylphenol	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
2-Nitroaniline	< 0.038		0.038	0.13	mg/Kg	10	02-Jul-2018 19:11
2-Nitrophenol	< 0.050		0.050	0.13	mg/Kg	10	02-Jul-2018 19:11
3&4-Methylphenol	< 0.020		0.020	0.13	mg/Kg	10	02-Jul-2018 19:11
3,3´-Dichlorobenzidine	< 0.050		0.050	0.13	mg/Kg	10	02-Jul-2018 19:11
3-Nitroaniline	< 0.038		0.038	0.13	mg/Kg	10	02-Jul-2018 19:11
4,6-Dinitro-2-methylphenol	< 0.042		0.042	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Bromophenyl phenyl ether	< 0.032		0.032	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Chloro-3-methylphenol	< 0.014		0.014	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Chloroaniline	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Chlorophenyl phenyl ether	< 0.030		0.030	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Nitroaniline	< 0.044		0.044	0.13	mg/Kg	10	02-Jul-2018 19:11
4-Nitrophenol	< 0.038		0.038	0.26	mg/Kg	10	02-Jul-2018 19:11
Acenaphthene	< 0.010		0.010	0.066	mg/Kg	10	02-Jul-2018 19:11
Acenaphthylene	< 0.020		0.020	0.066	mg/Kg	10	02-Jul-2018 19:11
Acetophenone	< 0.016		0.016	0.13	mg/Kg	10	02-Jul-2018 19:11
Anthracene	**0.011**	J	**0.010**	**0.066**	**mg/Kg**	10	02-Jul-2018 19:11
Atrazine	< 0.040		0.040	0.13	mg/Kg	10	02-Jul-2018 19:11
Benz(a)anthracene	< 0.032		0.032	0.066	mg/Kg	10	02-Jul-2018 19:11
Benzaldehyde	< 0.024	n	0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
Benzidine	< 0.028		0.028	0.13	mg/Kg	10	02-Jul-2018 19:11
Benzo(a)pyrene	< 0.020		0.020	0.066	mg/Kg	10	02-Jul-2018 19:11
Benzo(b)fluoranthene	< 0.024		0.024	0.066	mg/Kg	10	02-Jul-2018 19:11
Benzo(g,h,i)perylene	< 0.014		0.014	0.066	mg/Kg	10	02-Jul-2018 19:11
Benzo(k)fluoranthene	< 0.018		0.018	0.066	mg/Kg	10	02-Jul-2018 19:11
Bis(2-chloroethoxy)methane	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
Bis(2-chloroethyl)ether	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
Bis(2-chloroisopropyl)ether	< 0.028		0.028	0.13	mg/Kg	10	02-Jul-2018 19:11
Bis(2-ethylhexyl)phthalate	**0.23**		**0.034**	**0.13**	**mg/Kg**	10	02-Jul-2018 19:11
Butyl benzyl phthalate	< 0.026		0.026	0.13	mg/Kg	10	02-Jul-2018 19:11
Caprolactam	< 0.024		0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
Carbazole	< 0.024		0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
Chrysene	< 0.016		0.016	0.066	mg/Kg	10	02-Jul-2018 19:11
Di-n-butyl phthalate	< 0.024		0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
Di-n-octyl phthalate	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11
Dibenz(a,h)anthracene	< 0.032		0.032	0.066	mg/Kg	10	02-Jul-2018 19:11
Dibenzofuran	< 0.014		0.014	0.066	mg/Kg	10	02-Jul-2018 19:11
Diethyl phthalate	< 0.020		0.020	0.13	mg/Kg	10	02-Jul-2018 19:11
Dimethyl phthalate	< 0.016		0.016	0.13	mg/Kg	10	02-Jul-2018 19:11
Fluoranthene	< 0.022		0.022	0.066	mg/Kg	10	02-Jul-2018 19:11
Fluorene	< 0.022		0.022	0.066	mg/Kg	10	02-Jul-2018 19:11
Hexachlorobenzene	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11
Hexachlorobutadiene	< 0.024		0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
Hexachlorocyclopentadiene	< 0.016		0.016	0.13	mg/Kg	10	02-Jul-2018 19:11
Hexachloroethane	< 0.030		0.030	0.13	mg/Kg	10	02-Jul-2018 19:11
Indeno(1,2,3-cd)pyrene	< 0.016		0.016	0.066	mg/Kg	10	02-Jul-2018 19:11
Isophorone	< 0.016		0.016	0.13	mg/Kg	10	02-Jul-2018 19:11
N-Nitrosodi-n-propylamine	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
N-Nitrosodimethylamine	< 0.024		0.024	0.13	mg/Kg	10	02-Jul-2018 19:11
N-Nitrosodiphenylamine	< 0.014		0.014	0.13	mg/Kg	10	02-Jul-2018 19:11
Naphthalene	**0.17**		**0.012**	**0.066**	**mg/Kg**	10	02-Jul-2018 19:11
Nitrobenzene	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11
Pentachlorophenol	< 0.066		0.066	0.13	mg/Kg	10	02-Jul-2018 19:11
Phenanthrene	**0.043**	J	**0.030**	**0.066**	**mg/Kg**	10	02-Jul-2018 19:11
Phenol	< 0.022		0.022	0.13	mg/Kg	10	02-Jul-2018 19:11
Pyrene	**0.033**	J	**0.012**	**0.066**	**mg/Kg**	10	02-Jul-2018 19:11
Pyridine	< 0.018		0.018	0.13	mg/Kg	10	02-Jul-2018 19:11
Surr: 2,4,6-Tribromophenol	*37.0*			*36-126*	*%REC*	*10*	*02-Jul-2018 19:11*
Surr: 2-Fluorobiphenyl	*123*			*43-125*	*%REC*	*10*	*02-Jul-2018 19:11*
Surr: 2-Fluorophenol	*37.0*			*37-125*	*%REC*	*10*	*02-Jul-2018 19:11*
Surr: 4-Terphenyl-d14	*55.8*			*32-125*	*%REC*	*10*	*02-Jul-2018 19:11*
Surr: Nitrobenzene-d5	*39.3*			*37-125*	*%REC*	*10*	*02-Jul-2018 19:11*
Surr: Phenol-d6	*47.2*			*40-125*	*%REC*	*10*	*02-Jul-2018 19:11*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 27-Jun-2018		Analyst: MBG
nC6 to nC12	**96**	J	**21**	**140**	**mg/Kg**	1	28-Jun-2018 18:44
>nC12 to nC28	**160**		**28**	**140**	**mg/Kg**	1	28-Jun-2018 18:44
>nC28 to nC35	**87**	J	**28**	**140**	**mg/Kg**	1	28-Jun-2018 18:44
Total Petroleum Hydrocarbon	**343**		**21**	**140**	**mg/Kg**	1	28-Jun-2018 18:44
Surr: 2-Fluorobiphenyl	*85.5*			*70-130*	*%REC*	*1*	*28-Jun-2018 18:44*
Surr: Trifluoromethyl benzene	*83.2*			*70-130*	*%REC*	*1*	*28-Jun-2018 18:44*
TCLP PESTICIDES BY SW8081B		**Method:SW1311/8081A**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510C/3665A / 28-Jun-2018		Analyst: STH
Chlordane	< 0.00020		0.00020	0.00051	mg/L	1	03-Jul-2018 03:49
Endrin	< 0.000031		0.000031	0.00010	mg/L	1	03-Jul-2018 03:49
gamma-BHC	< 0.000010		0.000010	0.000051	mg/L	1	03-Jul-2018 03:49
Heptachlor	**0.000028**	J	**0.000010**	**0.000051**	**mg/L**	1	03-Jul-2018 03:49
Heptachlor epoxide	< 0.000010		0.000010	0.000051	mg/L	1	03-Jul-2018 03:49
Methoxychlor	< 0.00015		0.00015	0.00051	mg/L	1	03-Jul-2018 03:49
Toxaphene	< 0.00020		0.00020	0.00051	mg/L	1	03-Jul-2018 03:49
Surr: Decachlorobiphenyl	*116*			*30-150*	*%REC*	*1*	*03-Jul-2018 03:49*
Surr: Tetrachloro-m-xylene	*98.3*			*30-150*	*%REC*	*1*	*03-Jul-2018 03:49*
TCLP HERBICIDES BY SW8151A		**Method:SW1311/8150**		Leache:SW1311 / 28-Jun-2018	Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.000051		0.000051	0.00020	mg/L	1	30-Jun-2018 12:32
2,4-D	**0.00065**		**0.000061**	**0.00020**	**mg/L**	1	30-Jun-2018 12:32
Surr: DCAA	*77.3*			*40-140*	*%REC*	*1*	*30-Jun-2018 12:32*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		**Method:SW8081**			Prep:SW3541 / 28-Jun-2018		Analyst: STH
4,4´-DDD	< 0.00099		0.00099	0.0066	mg/Kg	1	05-Jul-2018 22:58
4,4´-DDE	< 0.00099		0.00099	0.0066	mg/Kg	1	05-Jul-2018 22:58
4,4´-DDT	**0.0021**	J	**0.00099**	**0.0066**	**mg/Kg**	1	05-Jul-2018 22:58
Aldrin	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
alpha-BHC	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
beta-BHC	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
Chlordane	< 0.0040		0.0040	0.033	mg/Kg	1	05-Jul-2018 22:58
delta-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	05-Jul-2018 22:58
Dieldrin	< 0.00099		0.00099	0.0066	mg/Kg	1	05-Jul-2018 22:58
Endosulfan I	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
Endosulfan II	< 0.0012		0.0012	0.0066	mg/Kg	1	05-Jul-2018 22:58
Endosulfan sulfate	< 0.0012		0.0012	0.0066	mg/Kg	1	05-Jul-2018 22:58
Endrin	< 0.0012		0.0012	0.0066	mg/Kg	1	05-Jul-2018 22:58
Endrin aldehyde	< 0.0012		0.0012	0.0066	mg/Kg	1	05-Jul-2018 22:58
gamma-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	05-Jul-2018 22:58
Heptachlor	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
Heptachlor epoxide	< 0.00060		0.00060	0.0033	mg/Kg	1	05-Jul-2018 22:58
Methoxychlor	< 0.0068		0.0068	0.033	mg/Kg	1	05-Jul-2018 22:58
Toxaphene	< 0.0095		0.0095	0.033	mg/Kg	1	05-Jul-2018 22:58
Surr: Decachlorobiphenyl	*132*			*59-144*	*%REC*	*1*	*05-Jul-2018 22:58*
Surr: Tetrachloro-m-xylene	*114*			*56.9-130*	*%REC*	*1*	*05-Jul-2018 22:58*
CHLORINATED HERBICIDES BY SW8151A		**Method:SW8151**			Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.0034		0.0034	0.0066	mg/Kg	1	30-Jun-2018 20:55
2,4-D	< 0.0014		0.0014	0.013	mg/Kg	1	30-Jun-2018 20:55
Surr: DCAA	*199*	*S*		*30-150*	*%REC*	*1*	*30-Jun-2018 20:55*
TRIVALENT CHROMIUM		**Method:Calculation**					Analyst: DQ
Chromium, Trivalent	**5.16**	n	**0.700**	**5.00**	**mg/Kg**	1	03-Jul-2018 17:48
TCLP METALS BY SW6020A		**Method:SW1311/6020**		Leache:SW1311 / 28-Jun-2018	Prep:SW3010A / 28-Jun-2018		Analyst: JCJ
Arsenic	**0.00809**	J	**0.00400**	**0.0500**	**mg/L**	1	28-Jun-2018 23:56
Barium	**0.130**	J	**0.0190**	**0.200**	**mg/L**	1	28-Jun-2018 23:56
Cadmium	< 0.00200		0.00200	0.0500	mg/L	1	28-Jun-2018 23:56
Chromium	< 0.00400		0.00400	0.0500	mg/L	1	28-Jun-2018 23:56
Lead	< 0.00600		0.00600	0.0500	mg/L	1	28-Jun-2018 23:56
Selenium	< 0.0110		0.0110	0.0500	mg/L	1	28-Jun-2018 23:56
Silver	< 0.00200		0.00200	0.0500	mg/L	1	28-Jun-2018 23:56

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

ALS Group Houston, Corp Date: 10-Jul-18

Client:	Golder Associates Inc.		**ANALYTICAL REPORT**
Project:	Former MCC Recycling Site		WorkOrder:HS18061286
Sample ID:	USOR-LS#1-01-180625		Lab ID:HS18061286-01
Collection Date:	25-Jun-2018 13:50		Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 27-Jun-2018		Analyst: JCJ
Antimony	**0.452**	J	**0.0605**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Arsenic	**0.873**		**0.0651**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Barium	**113**		**0.0279**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Beryllium	**0.120**	J	**0.0195**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Boron	**15.1**		**0.716**	**2.33**	**mg/Kg**	1	27-Jun-2018 21:02
Cadmium	**0.284**	J	**0.0251**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Chromium	**5.16**		**0.0214**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Cobalt	**0.737**		**0.0140**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Copper	**32.6**		**0.0354**	**0.186**	**mg/Kg**	1	27-Jun-2018 21:02
Lead	**6.97**		**0.0242**	**0.930**	**mg/Kg**	2	28-Jun-2018 10:49
Molybdenum	**5.29**		**0.0167**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Nickel	**4.00**		**0.0447**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Selenium	**0.780**		**0.0847**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Silver	**7.13**		**0.0140**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Thallium	< 0.415		0.415	0.930	mg/Kg	2	28-Jun-2018 10:49
Tin	**4.59**		**0.0595**	**1.40**	**mg/Kg**	1	27-Jun-2018 21:02
Titanium	**24.4**		**0.0372**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Vanadium	**4.67**		**0.0698**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
Zinc	**132**		**0.158**	**0.465**	**mg/Kg**	1	27-Jun-2018 21:02
TCLP MERCURY BY SW7470A		**Method:SW7470**		Leache:SW1311 / 28-Jun-2018	Prep:SW7470 / 29-Jun-2018		Analyst: JCJ
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	30-Jun-2018 11:06
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 29-Jun-2018		Analyst: JCJ
Mercury	**0.192**		**0.000473**	**0.00334**	**mg/Kg**	1	30-Jun-2018 17:26
OIL AND GREASE BY E1664A		**Method:E1664**			Prep:E1664 / 27-Jun-2018		Analyst: KAH
Oil and Grease	**333**		**100**	**100**	**mg/Kg**	1	02-Jul-2018 14:30
BURN RATE BY METHOD SW1030		**Method:SW1030**					Analyst: KAH
Ignitability, Solid	Negative		0	0	Burn Rate, mm/sec	1	02-Jul-2018 14:30
REACTIVE CYANIDE		**Method:SW7.3.3.2**			Prep:SW7.3.3.2		Analyst: MZD
Reactive Cyanide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:46
REACTIVE SULFIDE		**Method:SW7.3.4.2**					Analyst: MZD
Reactive Sulfide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:36
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**			Prep:SW3060A / 02-Jul-2018		Analyst: JHD
Chromium, Hexavalent	< 0.299		0.299	2.00	mg/kg	1	02-Jul-2018 14:15
CYANIDE		**Method:SW9014**			Prep:SW9010C / 28-Jun-2018		Analyst: KVL
Cyanide	< 0.290		0.290	1.94	mg/Kg	1	28-Jun-2018 13:20

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-LS#1-01-180625
Collection Date: 25-Jun-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-01
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH SOIL BY SW9045D		**Method:SW9045B**					Analyst: KVL
pH	**7.75**	H	**0.100**	**0.100**	**pH Units**	1	27-Jun-2018 14:45
Temp Deg C @pH	**27.7**	H	**0**	**0**	**°C**	1	27-Jun-2018 14:45
TOTAL ORGANIC CARBON BY SW9060A		**Method:SW9060**			Prep:SW9060 / 29-Jun-2018		Analyst: KMU
Total Organic Carbon	**15.0**		**0.0600**	**0.0600**	**wt%-dry**	1	02-Jul-2018 14:00
PHENOLICS		**Method:SW9065**			Prep:SW9065 / 02-Jul-2018		Analyst: MZD
Phenolics, Total Recoverable	**1.80**	J	**0.998**	**2.49**	**mg/kg**	1	02-Jul-2018 15:49
SUB ANALYSIS AVAILABLE CYANIDE - EPA OIA-1667		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0		NA	1	02-Jul-2018 08:34
SUBCONTRACT ANALYSIS - METALS ANALYSIS		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	05-Jul-2018 14:31

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		**Method:SW1311/8260B**		Leache:SW1311 / 28-Jun-2018	Prep:SW1311 / 28-Jun-2018		Analyst: PC
1,1-Dichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:56
1,2-Dichloroethane	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:56
1,4-Dichlorobenzene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:56
2-Butanone	< 0.020		0.020	0.20	mg/L	20	03-Jul-2018 03:56
Benzene	**0.093**	J	**0.012**	**0.10**	**mg/L**	20	03-Jul-2018 03:56
Carbon tetrachloride	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:56
Chlorobenzene	< 0.0080		0.0080	0.10	mg/L	20	03-Jul-2018 03:56
Chloroform	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:56
Tetrachloroethene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 03:56
Trichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 03:56
Vinyl chloride	< 0.0080		0.0080	0.040	mg/L	20	03-Jul-2018 03:56
Surr: 1,2-Dichloroethane-d4	*88.3*			*70-126*	*%REC*	*20*	*03-Jul-2018 03:56*
Surr: 4-Bromofluorobenzene	*103*			*82-124*	*%REC*	*20*	*03-Jul-2018 03:56*
Surr: Dibromofluoromethane	*102*			*77-123*	*%REC*	*20*	*03-Jul-2018 03:56*
Surr: Toluene-d8	*105*			*82-127*	*%REC*	*20*	*03-Jul-2018 03:56*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
1,1,1-Trichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
1,1,2,2-Tetrachloroethane	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:24
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:24
1,1,2-Trichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
1,1-Dichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2,4-Trichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2-Dibromo-3-chloropropane	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2-Dibromoethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2-Dichloroethane	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
1,2-Dichloropropane	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:24
1,3-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:24
1,4-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:24
2-Butanone	< 0.65		0.65	5.0	mg/Kg	500	03-Jul-2018 00:24
2-Chloroethyl vinyl ether	< 1.0		1.0	5.0	mg/Kg	500	03-Jul-2018 00:24
2-Hexanone	< 0.70		0.70	5.0	mg/Kg	500	03-Jul-2018 00:24
4-Methyl-2-pentanone	< 1.0		1.0	5.0	mg/Kg	500	03-Jul-2018 00:24
Acetone	< 1.0		1.0	10	mg/Kg	500	03-Jul-2018 00:24
Acrolein	< 1.0		1.0	10	mg/Kg	500	03-Jul-2018 00:24
Acrylonitrile	< 1.2		1.2	5.0	mg/Kg	500	03-Jul-2018 00:24
Benzene	**2.8**		**0.25**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Bromodichloromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Bromoform	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
Bromomethane	< 0.50		0.50	5.0	mg/Kg	500	03-Jul-2018 00:24
Carbon disulfide	< 0.30		0.30	5.0	mg/Kg	500	03-Jul-2018 00:24
Carbon tetrachloride	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
Chlorobenzene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
Chloroethane	< 0.40		0.40	5.0	mg/Kg	500	03-Jul-2018 00:24
Chloroform	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Chloromethane	< 0.25		0.25	5.0	mg/Kg	500	03-Jul-2018 00:24
cis-1,2-Dichloroethene	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:24
cis-1,3-Dichloropropene	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Cyclohexane	**2.5**	n	**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Dibromochloromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Dichlorodifluoromethane	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:24
Ethylbenzene	**32**		**0.35**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Isopropylbenzene	**3.0**		**0.45**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
m,p-Xylene	**140**		**0.80**	**5.0**	**mg/Kg**	500	03-Jul-2018 00:24

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Methyl acetate	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:24
Methyl tert-butyl ether	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Methylcyclohexane	**3.3**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Methylene chloride	< 0.50		0.50	5.0	mg/Kg	500	03-Jul-2018 00:24
o-Xylene	**59**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Styrene	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:24
Tetrachloroethene	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:24
Toluene	**14**		**0.30**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
trans-1,2-Dichloroethene	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
trans-1,3-Dichloropropene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
Trichloroethene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:24
Trichlorofluoromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:24
Vinyl chloride	< 0.40		0.40	1.0	mg/Kg	500	03-Jul-2018 00:24
Xylenes, Total	**200**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:24
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*500*	*03-Jul-2018 00:24*
Surr: 4-Bromofluorobenzene	*106*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:24*
Surr: Dibromofluoromethane	*98.8*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:24*
Surr: Toluene-d8	*100*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:24*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP SEMIVOLATILES		**Method:SW1311/8270**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510 / 29-Jun-2018		Analyst: SGA
2,4,5-Trichlorophenol	< 0.00094		0.00094	0.0052	mg/L	1	29-Jun-2018 19:40
2,4,6-Trichlorophenol	< 0.0015		0.0015	0.0052	mg/L	1	29-Jun-2018 19:40
2,4-Dinitrotoluene	< 0.0010		0.0010	0.0052	mg/L	1	29-Jun-2018 19:40
Cresols, Total	**0.34**		**0.021**	**0.16**	**mg/L**	10	29-Jun-2018 16:13
Hexachlorobenzene	< 0.0011		0.0011	0.0052	mg/L	1	29-Jun-2018 19:40
Hexachlorobutadiene	< 0.0011		0.0011	0.0052	mg/L	1	29-Jun-2018 19:40
Hexachloroethane	< 0.0010		0.0010	0.0052	mg/L	1	29-Jun-2018 19:40
Nitrobenzene	< 0.00083		0.00083	0.0052	mg/L	1	29-Jun-2018 19:40
Pentachlorophenol	< 0.0017		0.0017	0.0052	mg/L	1	29-Jun-2018 19:40
Pyridine	**0.0032**	J	**0.0021**	**0.0052**	**mg/L**	1	29-Jun-2018 19:40
Surr: 2,4,6-Tribromophenol	*86.3*			*39-153*	*%REC*	*10*	*29-Jun-2018 16:13*
Surr: 2,4,6-Tribromophenol	*108*			*39-153*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: 2-Fluorobiphenyl	*74.1*			*40-147*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: 2-Fluorobiphenyl	*66.1*			*40-147*	*%REC*	*10*	*29-Jun-2018 16:13*
Surr: 2-Fluorophenol	*32.0*	*J*		*21-110*	*%REC*	*10*	*29-Jun-2018 16:13*
Surr: 2-Fluorophenol	*58.1*			*21-110*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: 4-Terphenyl-d14	*95.4*			*39-141*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: 4-Terphenyl-d14	*80.3*			*39-141*	*%REC*	*10*	*29-Jun-2018 16:13*
Surr: Nitrobenzene-d5	*45.5*	*J*		*37-140*	*%REC*	*10*	*29-Jun-2018 16:13*
Surr: Nitrobenzene-d5	*58.5*			*37-140*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: Phenol-d6	*64.1*			*11-110*	*%REC*	*1*	*29-Jun-2018 19:40*
Surr: Phenol-d6	*34.7*	*J*		*11-110*	*%REC*	*10*	*29-Jun-2018 16:13*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
1,1´-Biphenyl	**8.6**		**0.67**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:05
1,2-Diphenylhydrazine	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
2,4,5-Trichlorophenol	< 0.99		0.99	2.6	mg/Kg	100	03-Jul-2018 15:05
2,4,6-Trichlorophenol	< 0.67		0.67	2.6	mg/Kg	100	03-Jul-2018 15:05
2,4-Dichlorophenol	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:05
2,4-Dimethylphenol	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:05
2,4-Dinitrophenol	< 1.8		1.8	5.2	mg/Kg	100	03-Jul-2018 15:05
2,4-Dinitrotoluene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05
2,6-Dinitrotoluene	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:05
2-Chloronaphthalene	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:05
2-Chlorophenol	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:05
2-Methylnaphthalene	**33**		**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
2-Methylphenol	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
2-Nitroaniline	< 0.75		0.75	2.6	mg/Kg	100	03-Jul-2018 15:05
2-Nitrophenol	< 0.99		0.99	2.6	mg/Kg	100	03-Jul-2018 15:05
3&4-Methylphenol	**18**		**0.40**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:05
3,3´-Dichlorobenzidine	< 0.99		0.99	2.6	mg/Kg	100	03-Jul-2018 15:05
3-Nitroaniline	< 0.75		0.75	2.6	mg/Kg	100	03-Jul-2018 15:05
4,6-Dinitro-2-methylphenol	< 0.83		0.83	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Bromophenyl phenyl ether	< 0.63		0.63	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Chloro-3-methylphenol	< 0.28		0.28	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Chloroaniline	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Chlorophenyl phenyl ether	< 0.59		0.59	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Nitroaniline	< 0.87		0.87	2.6	mg/Kg	100	03-Jul-2018 15:05
4-Nitrophenol	< 0.75		0.75	5.2	mg/Kg	100	03-Jul-2018 15:05
Acenaphthene	**3.1**		**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Acenaphthylene	< 0.40		0.40	1.3	mg/Kg	100	03-Jul-2018 15:05
Acetophenone	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:05
Anthracene	**0.96**	J	**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Atrazine	< 0.79		0.79	2.6	mg/Kg	100	03-Jul-2018 15:05
Benz(a)anthracene	**1.4**		**0.63**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Benzaldehyde	< 0.48	n	0.48	2.6	mg/Kg	100	03-Jul-2018 15:05
Benzidine	< 0.55		0.55	2.6	mg/Kg	100	03-Jul-2018 15:05
Benzo(a)pyrene	< 0.40		0.40	1.3	mg/Kg	100	03-Jul-2018 15:05
Benzo(b)fluoranthene	< 0.48		0.48	1.3	mg/Kg	100	03-Jul-2018 15:05
Benzo(g,h,i)perylene	**0.67**	J	**0.28**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Benzo(k)fluoranthene	< 0.36		0.36	1.3	mg/Kg	100	03-Jul-2018 15:05
Bis(2-chloroethoxy)methane	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
Bis(2-chloroethyl)ether	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
Bis(2-chloroisopropyl)ether	< 0.55		0.55	2.6	mg/Kg	100	03-Jul-2018 15:05
Bis(2-ethylhexyl)phthalate	**8.9**		**0.67**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:05
Butyl benzyl phthalate	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:05
Caprolactam	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:05
Carbazole	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:05
Chrysene	**2.3**		**0.32**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Di-n-butyl phthalate	**4.0**		**0.48**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:05
Di-n-octyl phthalate	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05
Dibenz(a,h)anthracene	< 0.63		0.63	1.3	mg/Kg	100	03-Jul-2018 15:05
Dibenzofuran	< 0.28		0.28	1.3	mg/Kg	100	03-Jul-2018 15:05
Diethyl phthalate	< 0.40		0.40	2.6	mg/Kg	100	03-Jul-2018 15:05
Dimethyl phthalate	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:05
Fluoranthene	**1.2**	J	**0.44**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Fluorene	**3.6**		**0.44**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Hexachlorobenzene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05
Hexachlorobutadiene	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:05
Hexachlorocyclopentadiene	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:05
Hexachloroethane	< 0.59		0.59	2.6	mg/Kg	100	03-Jul-2018 15:05
Indeno(1,2,3-cd)pyrene	< 0.32		0.32	1.3	mg/Kg	100	03-Jul-2018 15:05
Isophorone	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:05
N-Nitrosodi-n-propylamine	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
N-Nitrosodimethylamine	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:05
N-Nitrosodiphenylamine	< 0.28		0.28	2.6	mg/Kg	100	03-Jul-2018 15:05
Naphthalene	**78**		**0.24**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Nitrobenzene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05
Pentachlorophenol	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:05
Phenanthrene	**7.1**		**0.59**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Phenol	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:05
Pyrene	**3.2**		**0.24**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:05
Pyridine	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:05
Surr: 2,4,6-Tribromophenol	*0*	*S*		*36-126*	*%REC*	*100*	*03-Jul-2018 15:05*
Surr: 2-Fluorobiphenyl	*0*	*S*		*43-125*	*%REC*	*100*	*03-Jul-2018 15:05*
Surr: 2-Fluorophenol	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:05*
Surr: 4-Terphenyl-d14	*0*	*S*		*32-125*	*%REC*	*100*	*03-Jul-2018 15:05*
Surr: Nitrobenzene-d5	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:05*
Surr: Phenol-d6	*0*	*S*		*40-125*	*%REC*	*100*	*03-Jul-2018 15:05*

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ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 27-Jun-2018		Analyst: MBG
nC6 to nC12	**7,600**		**420**	**2900**	**mg/Kg**	40	02-Jul-2018 10:54
>nC12 to nC28	**23,000**		**560**	**2900**	**mg/Kg**	40	02-Jul-2018 10:54
>nC28 to nC35	**6,600**		**560**	**2900**	**mg/Kg**	40	02-Jul-2018 10:54
Total Petroleum Hydrocarbon	**37,200**		**420**	**2900**	**mg/Kg**	40	02-Jul-2018 10:54
Surr: 2-Fluorobiphenyl	*0*	*S*		*70-130*	*%REC*	*40*	*02-Jul-2018 10:54*
Surr: Trifluoromethyl benzene	*0*	*S*		*70-130*	*%REC*	*40*	*02-Jul-2018 10:54*
TCLP PESTICIDES BY SW8081B		**Method:SW1311/8081A**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510C/3665A / 28-Jun-2018		Analyst: STH
Chlordane	< 0.00021		0.00021	0.00052	mg/L	1	09-Jul-2018 17:18
Endrin	< 0.000031		0.000031	0.00010	mg/L	1	09-Jul-2018 17:18
gamma-BHC	**0.000031**	J	**0.000010**	**0.000052**	**mg/L**	1	09-Jul-2018 17:18
Heptachlor	< 0.000010		0.000010	0.000052	mg/L	1	09-Jul-2018 17:18
Heptachlor epoxide	**0.00011**	P	**0.000010**	**0.000052**	**mg/L**	1	09-Jul-2018 17:18
Methoxychlor	< 0.00016		0.00016	0.00052	mg/L	1	09-Jul-2018 17:18
Toxaphene	< 0.00021		0.00021	0.00052	mg/L	1	09-Jul-2018 17:18
Surr: Decachlorobiphenyl	*130*			*30-150*	*%REC*	*1*	*09-Jul-2018 17:18*
Surr: Tetrachloro-m-xylene	*223*	*S*		*30-150*	*%REC*	*1*	*09-Jul-2018 17:18*
TCLP HERBICIDES BY SW8151A		**Method:SW1311/8150**		Leache:SW1311 / 28-Jun-2018	Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.000051		0.000051	0.00020	mg/L	1	30-Jun-2018 13:35
2,4-D	< 0.000061		0.000061	0.00020	mg/L	1	30-Jun-2018 13:35
Surr: DCAA	*109*			*40-140*	*%REC*	*1*	*30-Jun-2018 13:35*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		**Method:SW8081**			Prep:SW3541 / 28-Jun-2018		Analyst: STH
4,4´-DDD	**0.023**	P	**0.00099**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
4,4´-DDE	**0.0066**	J	**0.00099**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
4,4´-DDT	**0.015**	P	**0.00099**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
Aldrin	< 0.00060		0.00060	0.0033	mg/Kg	1	06-Jul-2018 00:45
alpha-BHC	< 0.00060		0.00060	0.0033	mg/Kg	1	06-Jul-2018 00:45
beta-BHC	**0.015**		**0.00060**	**0.0033**	**mg/Kg**	1	06-Jul-2018 00:45
Chlordane	< 0.0040		0.0040	0.033	mg/Kg	1	06-Jul-2018 00:45
delta-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	06-Jul-2018 00:45
Dieldrin	**0.0044**	J	**0.00099**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
Endosulfan I	**0.0038**	P	**0.00060**	**0.0033**	**mg/Kg**	1	06-Jul-2018 00:45
Endosulfan II	**0.018**		**0.0012**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
Endosulfan sulfate	< 0.0012		0.0012	0.0066	mg/Kg	1	06-Jul-2018 00:45
Endrin	**0.011**	P	**0.0012**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
Endrin aldehyde	**0.0039**	J	**0.0012**	**0.0066**	**mg/Kg**	1	06-Jul-2018 00:45
gamma-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	06-Jul-2018 00:45
Heptachlor	**0.0046**	P	**0.00060**	**0.0033**	**mg/Kg**	1	06-Jul-2018 00:45
Heptachlor epoxide	**0.0095**	P	**0.00060**	**0.0033**	**mg/Kg**	1	06-Jul-2018 00:45
Methoxychlor	< 0.0068		0.0068	0.033	mg/Kg	1	06-Jul-2018 00:45
Toxaphene	< 0.0095		0.0095	0.033	mg/Kg	1	06-Jul-2018 00:45
Surr: Decachlorobiphenyl	*81.2*			*59-144*	*%REC*	*1*	*06-Jul-2018 00:45*
Surr: Tetrachloro-m-xylene	*125*			*56.9-130*	*%REC*	*1*	*06-Jul-2018 00:45*
CHLORINATED HERBICIDES BY SW8151A		**Method:SW8151**			Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.0034		0.0034	0.0066	mg/Kg	1	30-Jun-2018 18:18
2,4-D	**0.0088**	J	**0.0014**	**0.013**	**mg/Kg**	1	30-Jun-2018 18:18
Surr: DCAA	*146*			*30-150*	*%REC*	*1*	*30-Jun-2018 18:18*
TRIVALENT CHROMIUM		**Method:Calculation**					Analyst: DQ
Chromium, Trivalent	**15.8**	n	**0.700**	**5.00**	**mg/Kg**	1	03-Jul-2018 17:48
TCLP METALS BY SW6020A		**Method:SW1311/6020**		Leache:SW1311 / 28-Jun-2018	Prep:SW3010A / 28-Jun-2018		Analyst: JCJ
Arsenic	**0.00421**	J	**0.00400**	**0.0500**	**mg/L**	1	29-Jun-2018 00:07
Barium	**0.0532**	J	**0.0190**	**0.200**	**mg/L**	1	29-Jun-2018 00:07
Cadmium	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:07
Chromium	**0.0117**	J	**0.00400**	**0.0500**	**mg/L**	1	29-Jun-2018 00:07
Lead	< 0.00600		0.00600	0.0500	mg/L	1	29-Jun-2018 00:07
Selenium	< 0.0110		0.0110	0.0500	mg/L	1	29-Jun-2018 00:07
Silver	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:07

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-01-180625
Collection Date: 25-Jun-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-02
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 27-Jun-2018		Analyst: JCJ
Antimony	**19.9**		**0.0613**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Arsenic	**1.15**		**0.0660**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Barium	**186**		**0.566**	**9.43**	**mg/Kg**	20	28-Jun-2018 10:51
Beryllium	**0.0441**	J	**0.0198**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Boron	**4.58**		**0.726**	**2.36**	**mg/Kg**	1	27-Jun-2018 21:04
Cadmium	**0.412**	J	**0.0255**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Chromium	**15.8**		**0.0217**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Cobalt	**3.55**		**0.0141**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Copper	**36.2**		**0.0358**	**0.189**	**mg/Kg**	1	27-Jun-2018 21:04
Lead	**17.5**		**0.0123**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Molybdenum	**31.5**		**0.0170**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Nickel	**25.1**		**0.0453**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Selenium	**0.217**	J	**0.0858**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Silver	**0.263**	J	**0.0141**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Thallium	< 0.210		0.210	0.472	mg/Kg	1	27-Jun-2018 21:04
Tin	**10.0**		**0.0604**	**1.41**	**mg/Kg**	1	27-Jun-2018 21:04
Titanium	**80.4**		**0.0377**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Vanadium	**8.64**		**0.0707**	**0.472**	**mg/Kg**	1	27-Jun-2018 21:04
Zinc	**701**		**3.21**	**9.43**	**mg/Kg**	20	28-Jun-2018 10:51
TCLP MERCURY BY SW7470A		**Method:SW7470**		Leache:SW1311 / 28-Jun-2018	Prep:SW7470 / 29-Jun-2018		Analyst: JCJ
Mercury	**0.0000330**	J	**0.0000300**	**0.000200**	**mg/L**	1	30-Jun-2018 11:07
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 29-Jun-2018		Analyst: JCJ
Mercury	**2.73**		**0.00254**	**0.0180**	**mg/Kg**	5	30-Jun-2018 17:49
OIL AND GREASE BY E1664A		**Method:E1664**			Prep:E1664 / 27-Jun-2018		Analyst: KAH
Oil and Grease	**44,400**		**100**	**100**	**mg/Kg**	1	02-Jul-2018 14:30
BURN RATE BY METHOD SW1030		**Method:SW1030**					Analyst: KAH
Ignitability, Solid	Negative		0	0	Burn Rate, mm/sec	1	02-Jul-2018 14:30
REACTIVE CYANIDE		**Method:SW7.3.3.2**			Prep:SW7.3.3.2		Analyst: MZD
Reactive Cyanide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:46
REACTIVE SULFIDE		**Method:SW7.3.4.2**					Analyst: MZD
Reactive Sulfide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:36
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**			Prep:SW3060A / 02-Jul-2018		Analyst: JHD
Chromium, Hexavalent	< 0.298		0.298	1.99	mg/kg	1	02-Jul-2018 14:15
CYANIDE		**Method:SW9014**			Prep:SW9010C / 28-Jun-2018		Analyst: KVL
Cyanide	**0.277**	J	**0.277**	**1.85**	**mg/Kg**	1	28-Jun-2018 13:20

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

ALS Group Houston, Corp Date: 10-Jul-18

Client:	Golder Associates Inc.		**ANALYTICAL REPORT**
Project:	Former MCC Recycling Site		WorkOrder:HS18061286
Sample ID:	USOR-GT-01-180625		Lab ID:HS18061286-02
Collection Date:	25-Jun-2018 15:10		Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH SOIL BY SW9045D		**Method:SW9045B**					Analyst: KVL
pH	**7.27**	H	**0.100**	**0.100**	**pH Units**	1	27-Jun-2018 14:45
Temp Deg C @pH	**27.6**	H	**0**	**0**	**°C**	1	27-Jun-2018 14:45
TOTAL ORGANIC CARBON BY SW9060A		**Method:SW9060**			Prep:SW9060 / 29-Jun-2018		Analyst: KMU
Total Organic Carbon	**55.5**		**0.0600**	**0.0600**	**wt%-dry**	1	02-Jul-2018 14:00
PHENOLICS		**Method:SW9065**			Prep:SW9065 / 02-Jul-2018		Analyst: MZD
Phenolics, Total Recoverable	**13.9**		**0.998**	**2.49**	**mg/kg**	1	02-Jul-2018 15:49
SUB ANALYSIS AVAILABLE CYANIDE - EPA OIA-1667		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0		NA	1	02-Jul-2018 08:34
SUBCONTRACT ANALYSIS - METALS ANALYSIS		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	05-Jul-2018 14:31

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		**Method:SW1311/8260B**		Leache:SW1311 / 28-Jun-2018	Prep:SW1311 / 28-Jun-2018		Analyst: PC
1,1-Dichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:21
1,2-Dichloroethane	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:21
1,4-Dichlorobenzene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:21
2-Butanone	**0.15**	J	**0.020**	**0.20**	**mg/L**	20	03-Jul-2018 04:21
Benzene	**0.11**		**0.012**	**0.10**	**mg/L**	20	03-Jul-2018 04:21
Carbon tetrachloride	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:21
Chlorobenzene	< 0.0080		0.0080	0.10	mg/L	20	03-Jul-2018 04:21
Chloroform	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:21
Tetrachloroethene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:21
Trichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:21
Vinyl chloride	< 0.0080		0.0080	0.040	mg/L	20	03-Jul-2018 04:21
Surr: 1,2-Dichloroethane-d4	*90.8*			*70-126*	*%REC*	*20*	*03-Jul-2018 04:21*
Surr: 4-Bromofluorobenzene	*104*			*82-124*	*%REC*	*20*	*03-Jul-2018 04:21*
Surr: Dibromofluoromethane	*105*			*77-123*	*%REC*	*20*	*03-Jul-2018 04:21*
Surr: Toluene-d8	*106*			*82-127*	*%REC*	*20*	*03-Jul-2018 04:21*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
1,1,1-Trichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
1,1,2,2-Tetrachloroethane	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:49
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:49
1,1,2-Trichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
1,1-Dichloroethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2,4-Trichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2-Dibromo-3-chloropropane	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2-Dibromoethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2-Dichloroethane	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
1,2-Dichloropropane	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:49
1,3-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:49
1,4-Dichlorobenzene	< 0.50		0.50	2.5	mg/Kg	500	03-Jul-2018 00:49
2-Butanone	< 0.66		0.66	5.0	mg/Kg	500	03-Jul-2018 00:49
2-Chloroethyl vinyl ether	< 1.0		1.0	5.0	mg/Kg	500	03-Jul-2018 00:49
2-Hexanone	< 0.71		0.71	5.0	mg/Kg	500	03-Jul-2018 00:49
4-Methyl-2-pentanone	< 1.0		1.0	5.0	mg/Kg	500	03-Jul-2018 00:49
Acetone	< 1.0		1.0	10	mg/Kg	500	03-Jul-2018 00:49
Acrolein	< 1.0		1.0	10	mg/Kg	500	03-Jul-2018 00:49
Acrylonitrile	< 1.2		1.2	5.0	mg/Kg	500	03-Jul-2018 00:49
Benzene	**4.0**		**0.25**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Bromodichloromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Bromoform	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
Bromomethane	< 0.50		0.50	5.0	mg/Kg	500	03-Jul-2018 00:49
Carbon disulfide	< 0.30		0.30	5.0	mg/Kg	500	03-Jul-2018 00:49
Carbon tetrachloride	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
Chlorobenzene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
Chloroethane	< 0.40		0.40	5.0	mg/Kg	500	03-Jul-2018 00:49
Chloroform	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Chloromethane	< 0.25		0.25	5.0	mg/Kg	500	03-Jul-2018 00:49
cis-1,2-Dichloroethene	< 0.40		0.40	2.5	mg/Kg	500	03-Jul-2018 00:49
cis-1,3-Dichloropropene	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Cyclohexane	**3.2**	n	**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Dibromochloromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Dichlorodifluoromethane	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:49
Ethylbenzene	**38**		**0.35**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Isopropylbenzene	**4.2**		**0.45**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
m,p-Xylene	**150**		**0.81**	**5.0**	**mg/Kg**	500	03-Jul-2018 00:49

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Methyl acetate	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:49
Methyl tert-butyl ether	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Methylcyclohexane	**5.0**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Methylene chloride	< 0.50		0.50	5.0	mg/Kg	500	03-Jul-2018 00:49
o-Xylene	**75**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Styrene	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:49
Tetrachloroethene	< 0.35		0.35	2.5	mg/Kg	500	03-Jul-2018 00:49
Toluene	**20**		**0.30**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
trans-1,2-Dichloroethene	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
trans-1,3-Dichloropropene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
Trichloroethene	< 0.30		0.30	2.5	mg/Kg	500	03-Jul-2018 00:49
Trichlorofluoromethane	< 0.25		0.25	2.5	mg/Kg	500	03-Jul-2018 00:49
Vinyl chloride	< 0.40		0.40	1.0	mg/Kg	500	03-Jul-2018 00:49
Xylenes, Total	**230**		**0.50**	**2.5**	**mg/Kg**	500	03-Jul-2018 00:49
Surr: 1,2-Dichloroethane-d4	*102*			*70-126*	*%REC*	*500*	*03-Jul-2018 00:49*
Surr: 4-Bromofluorobenzene	*104*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:49*
Surr: Dibromofluoromethane	*98.0*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:49*
Surr: Toluene-d8	*99.1*			*70-130*	*%REC*	*500*	*03-Jul-2018 00:49*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP SEMIVOLATILES		**Method:SW1311/8270**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510 / 29-Jun-2018		Analyst: SGA
2,4,5-Trichlorophenol	< 0.0014		0.0014	0.0077	mg/L	1	29-Jun-2018 20:00
2,4,6-Trichlorophenol	< 0.0022		0.0022	0.0077	mg/L	1	29-Jun-2018 20:00
2,4-Dinitrotoluene	< 0.0015		0.0015	0.0077	mg/L	1	29-Jun-2018 20:00
Cresols, Total	**1.3**		**0.031**	**0.23**	**mg/L**	10	29-Jun-2018 16:33
Hexachlorobenzene	< 0.0017		0.0017	0.0077	mg/L	1	29-Jun-2018 20:00
Hexachlorobutadiene	< 0.0017		0.0017	0.0077	mg/L	1	29-Jun-2018 20:00
Hexachloroethane	< 0.0015		0.0015	0.0077	mg/L	1	29-Jun-2018 20:00
Nitrobenzene	< 0.0012		0.0012	0.0077	mg/L	1	29-Jun-2018 20:00
Pentachlorophenol	< 0.0025		0.0025	0.0077	mg/L	1	29-Jun-2018 20:00
Pyridine	**0.0065**	J	**0.0031**	**0.0077**	**mg/L**	1	29-Jun-2018 20:00
Surr: 2,4,6-Tribromophenol	*137*			*39-153*	*%REC*	*1*	*29-Jun-2018 20:00*
Surr: 2,4,6-Tribromophenol	*104*			*39-153*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: 2-Fluorobiphenyl	*87.1*			*40-147*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: 2-Fluorobiphenyl	*104*			*40-147*	*%REC*	*1*	*29-Jun-2018 20:00*
Surr: 2-Fluorophenol	*61.4*	*J*		*21-110*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: 2-Fluorophenol	*78.0*			*21-110*	*%REC*	*1*	*29-Jun-2018 20:00*
Surr: 4-Terphenyl-d14	*92.2*			*39-141*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: 4-Terphenyl-d14	*119*			*39-141*	*%REC*	*1*	*29-Jun-2018 20:00*
Surr: Nitrobenzene-d5	*69.4*	*J*		*37-140*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: Nitrobenzene-d5	*85.6*			*37-140*	*%REC*	*1*	*29-Jun-2018 20:00*
Surr: Phenol-d6	*69.8*	*J*		*11-110*	*%REC*	*10*	*29-Jun-2018 16:33*
Surr: Phenol-d6	*87.7*			*11-110*	*%REC*	*1*	*29-Jun-2018 20:00*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
1,1´-Biphenyl	**8.9**		**0.68**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:24
1,2-Diphenylhydrazine	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:24
2,4,5-Trichlorophenol	< 1.0		1.0	2.6	mg/Kg	100	03-Jul-2018 15:24
2,4,6-Trichlorophenol	< 0.68		0.68	2.6	mg/Kg	100	03-Jul-2018 15:24
2,4-Dichlorophenol	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:24
2,4-Dimethylphenol	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:24
2,4-Dinitrophenol	< 1.8		1.8	5.3	mg/Kg	100	03-Jul-2018 15:24
2,4-Dinitrotoluene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24
2,6-Dinitrotoluene	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:24
2-Chloronaphthalene	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:24
2-Chlorophenol	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:24
2-Methylnaphthalene	**25**		**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
2-Methylphenol	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:24
2-Nitroaniline	< 0.76		0.76	2.6	mg/Kg	100	03-Jul-2018 15:24
2-Nitrophenol	< 1.0		1.0	2.6	mg/Kg	100	03-Jul-2018 15:24
3&4-Methylphenol	**59**		**0.40**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:24
3,3´-Dichlorobenzidine	< 1.0		1.0	2.6	mg/Kg	100	03-Jul-2018 15:24
3-Nitroaniline	< 0.76		0.76	2.6	mg/Kg	100	03-Jul-2018 15:24
4,6-Dinitro-2-methylphenol	< 0.84		0.84	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Bromophenyl phenyl ether	< 0.64		0.64	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Chloro-3-methylphenol	< 0.28		0.28	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Chloroaniline	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Chlorophenyl phenyl ether	< 0.60		0.60	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Nitroaniline	< 0.88		0.88	2.6	mg/Kg	100	03-Jul-2018 15:24
4-Nitrophenol	< 0.76		0.76	5.3	mg/Kg	100	03-Jul-2018 15:24
Acenaphthene	**3.7**		**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Acenaphthylene	< 0.40		0.40	1.3	mg/Kg	100	03-Jul-2018 15:24
Acetophenone	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:24
Anthracene	**0.96**	J	**0.20**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Atrazine	< 0.80		0.80	2.6	mg/Kg	100	03-Jul-2018 15:24
Benz(a)anthracene	< 0.64		0.64	1.3	mg/Kg	100	03-Jul-2018 15:24
Benzaldehyde	< 0.48	n	0.48	2.6	mg/Kg	100	03-Jul-2018 15:24
Benzidine	< 0.56		0.56	2.6	mg/Kg	100	03-Jul-2018 15:24
Benzo(a)pyrene	**0.65**	J	**0.40**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Benzo(b)fluoranthene	< 0.48		0.48	1.3	mg/Kg	100	03-Jul-2018 15:24
Benzo(g,h,i)perylene	< 0.28		0.28	1.3	mg/Kg	100	03-Jul-2018 15:24
Benzo(k)fluoranthene	< 0.36		0.36	1.3	mg/Kg	100	03-Jul-2018 15:24
Bis(2-chloroethoxy)methane	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
Bis(2-chloroethyl)ether	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:24
Bis(2-chloroisopropyl)ether	< 0.56		0.56	2.6	mg/Kg	100	03-Jul-2018 15:24
Bis(2-ethylhexyl)phthalate	**7.5**		**0.68**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:24
Butyl benzyl phthalate	< 0.52		0.52	2.6	mg/Kg	100	03-Jul-2018 15:24
Caprolactam	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:24
Carbazole	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:24
Chrysene	**1.6**		**0.32**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Di-n-butyl phthalate	**2.7**		**0.48**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:24
Di-n-octyl phthalate	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24
Dibenz(a,h)anthracene	< 0.64		0.64	1.3	mg/Kg	100	03-Jul-2018 15:24
Dibenzofuran	< 0.28		0.28	1.3	mg/Kg	100	03-Jul-2018 15:24
Diethyl phthalate	< 0.40		0.40	2.6	mg/Kg	100	03-Jul-2018 15:24
Dimethyl phthalate	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:24
Fluoranthene	**0.86**	J	**0.44**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Fluorene	**3.6**		**0.44**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Hexachlorobenzene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24
Hexachlorobutadiene	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:24
Hexachlorocyclopentadiene	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:24
Hexachloroethane	< 0.60		0.60	2.6	mg/Kg	100	03-Jul-2018 15:24
Indeno(1,2,3-cd)pyrene	< 0.32		0.32	1.3	mg/Kg	100	03-Jul-2018 15:24
Isophorone	< 0.32		0.32	2.6	mg/Kg	100	03-Jul-2018 15:24
N-Nitrosodi-n-propylamine	< 0.44		0.44	2.6	mg/Kg	100	03-Jul-2018 15:24
N-Nitrosodimethylamine	< 0.48		0.48	2.6	mg/Kg	100	03-Jul-2018 15:24
N-Nitrosodiphenylamine	< 0.28		0.28	2.6	mg/Kg	100	03-Jul-2018 15:24
Naphthalene	**31**		**0.24**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Nitrobenzene	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24
Pentachlorophenol	< 1.3		1.3	2.6	mg/Kg	100	03-Jul-2018 15:24
Phenanthrene	**5.9**		**0.60**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Phenol	**3.7**		**0.44**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:24
Pyrene	**2.2**		**0.24**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:24
Pyridine	< 0.36		0.36	2.6	mg/Kg	100	03-Jul-2018 15:24
Surr: 2,4,6-Tribromophenol	*0*	*S*		*36-126*	*%REC*	*100*	*03-Jul-2018 15:24*
Surr: 2-Fluorobiphenyl	*0*	*S*		*43-125*	*%REC*	*100*	*03-Jul-2018 15:24*
Surr: 2-Fluorophenol	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:24*
Surr: 4-Terphenyl-d14	*0*	*S*		*32-125*	*%REC*	*100*	*03-Jul-2018 15:24*
Surr: Nitrobenzene-d5	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:24*
Surr: Phenol-d6	*0*	*S*		*40-125*	*%REC*	*100*	*03-Jul-2018 15:24*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 27-Jun-2018		Analyst: MBG
nC6 to nC12	**7,900**		**520**	**3500**	**mg/Kg**	50	02-Jul-2018 11:23
>nC12 to nC28	**27,000**		**680**	**3500**	**mg/Kg**	50	02-Jul-2018 11:23
>nC28 to nC35	**6,300**		**680**	**3500**	**mg/Kg**	50	02-Jul-2018 11:23
Total Petroleum Hydrocarbon	**41,200**		**520**	**3500**	**mg/Kg**	50	02-Jul-2018 11:23
Surr: 2-Fluorobiphenyl	*0*	*S*		*70-130*	*%REC*	*50*	*02-Jul-2018 11:23*
Surr: Trifluoromethyl benzene	*0*	*S*		*70-130*	*%REC*	*50*	*02-Jul-2018 11:23*
TCLP PESTICIDES BY SW8081B		**Method:SW1311/8081A**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510C/3665A / 28-Jun-2018		Analyst: STH
Chlordane	< 0.00021		0.00021	0.00053	mg/L	1	09-Jul-2018 17:54
Endrin	**0.000061**	J	**0.000032**	**0.00011**	**mg/L**	1	09-Jul-2018 17:54
gamma-BHC	< 0.000011		0.000011	0.000053	mg/L	1	09-Jul-2018 17:54
Heptachlor	< 0.000011		0.000011	0.000053	mg/L	1	09-Jul-2018 17:54
Heptachlor epoxide	< 0.000011		0.000011	0.000053	mg/L	1	09-Jul-2018 17:54
Methoxychlor	< 0.00016		0.00016	0.00053	mg/L	1	09-Jul-2018 17:54
Toxaphene	< 0.00021		0.00021	0.00053	mg/L	1	09-Jul-2018 17:54
Surr: Decachlorobiphenyl	*98.2*			*30-150*	*%REC*	*1*	*09-Jul-2018 17:54*
Surr: Tetrachloro-m-xylene	*276*	*S*		*30-150*	*%REC*	*1*	*09-Jul-2018 17:54*
TCLP HERBICIDES BY SW8151A		**Method:SW1311/8150**		Leache:SW1311 / 28-Jun-2018	Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	**0.00088**	P	**0.000052**	**0.00021**	**mg/L**	1	30-Jun-2018 14:07
2,4-D	**0.0051**	P	**0.000062**	**0.00021**	**mg/L**	1	30-Jun-2018 14:07
Surr: DCAA	*94.1*			*40-140*	*%REC*	*1*	*30-Jun-2018 14:07*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		**Method:SW8081**			Prep:SW3541 / 28-Jun-2018		Analyst: STH
4,4´-DDD	< 0.00099		0.00099	0.0066	mg/Kg	1	09-Jul-2018 18:29
4,4´-DDE	**0.024**		**0.00099**	**0.0066**	**mg/Kg**	1	09-Jul-2018 18:29
4,4´-DDT	**0.018**	P	**0.00099**	**0.0066**	**mg/Kg**	1	09-Jul-2018 18:29
Aldrin	**0.021**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 18:29
alpha-BHC	< 0.00060		0.00060	0.0033	mg/Kg	1	09-Jul-2018 18:29
beta-BHC	**0.056**	P	**0.0012**	**0.0066**	**mg/Kg**	2	09-Jul-2018 16:43
Chlordane	< 0.0040		0.0040	0.033	mg/Kg	1	09-Jul-2018 18:29
delta-BHC	**0.028**	P	**0.00040**	**0.0033**	**mg/Kg**	1	09-Jul-2018 18:29
Dieldrin	< 0.00099		0.00099	0.0066	mg/Kg	1	09-Jul-2018 18:29
Endosulfan I	**0.0078**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 18:29
Endosulfan II	**0.018**	P	**0.0012**	**0.0066**	**mg/Kg**	1	09-Jul-2018 18:29
Endosulfan sulfate	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 18:29
Endrin	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 18:29
Endrin aldehyde	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 18:29
gamma-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	09-Jul-2018 18:29
Heptachlor	**0.014**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 18:29
Heptachlor epoxide	**0.026**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 18:29
Methoxychlor	< 0.0068		0.0068	0.033	mg/Kg	1	09-Jul-2018 18:29
Toxaphene	< 0.0095		0.0095	0.033	mg/Kg	1	09-Jul-2018 18:29
Surr: Decachlorobiphenyl	*189*	*S*		*59-144*	*%REC*	*1*	*09-Jul-2018 18:29*
Surr: Tetrachloro-m-xylene	*376*	*S*		*56.9-130*	*%REC*	*1*	*09-Jul-2018 18:29*
CHLORINATED HERBICIDES BY SW8151A		**Method:SW8151**			Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.0034		0.0034	0.0066	mg/Kg	1	30-Jun-2018 18:49
2,4-D	< 0.0014		0.0014	0.013	mg/Kg	1	30-Jun-2018 18:49
Surr: DCAA	*184*	*S*		*30-150*	*%REC*	*1*	*30-Jun-2018 18:49*
TRIVALENT CHROMIUM		**Method:Calculation**					Analyst: DQ
Chromium, Trivalent	**15.3**	n	**0.700**	**5.00**	**mg/Kg**	1	03-Jul-2018 17:48
TCLP METALS BY SW6020A		**Method:SW1311/6020**		Leache:SW1311 / 28-Jun-2018	Prep:SW3010A / 28-Jun-2018		Analyst: JCJ
Arsenic	< 0.00400		0.00400	0.0500	mg/L	1	29-Jun-2018 00:09
Barium	**0.0448**	J	**0.0190**	**0.200**	**mg/L**	1	29-Jun-2018 00:09
Cadmium	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:09
Chromium	**0.0177**	J	**0.00400**	**0.0500**	**mg/L**	1	29-Jun-2018 00:09
Lead	< 0.00600		0.00600	0.0500	mg/L	1	29-Jun-2018 00:09
Selenium	< 0.0110		0.0110	0.0500	mg/L	1	29-Jun-2018 00:09
Silver	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:09

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-GT-02-180625
Collection Date: 25-Jun-2018 15:15

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-03
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 27-Jun-2018		Analyst: JCJ
Antimony	**23.7**		**0.0595**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Arsenic	**1.35**		**0.0641**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Barium	**174**		**0.550**	**9.16**	**mg/Kg**	20	28-Jun-2018 10:54
Beryllium	**0.0400**	J	**0.0192**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Boron	**9.61**		**0.705**	**2.29**	**mg/Kg**	1	27-Jun-2018 21:06
Cadmium	**0.373**	J	**0.0247**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Chromium	**15.3**		**0.0211**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Cobalt	**5.33**		**0.0137**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Copper	**29.6**		**0.0348**	**0.183**	**mg/Kg**	1	27-Jun-2018 21:06
Lead	**12.7**		**0.0119**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Molybdenum	**114**		**0.0165**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Nickel	**34.7**		**0.0440**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Selenium	**0.135**	J	**0.0834**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Silver	**0.282**	J	**0.0137**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Thallium	< 0.204		0.204	0.458	mg/Kg	1	27-Jun-2018 21:06
Tin	**8.21**		**0.0586**	**1.37**	**mg/Kg**	1	27-Jun-2018 21:06
Titanium	**52.5**		**0.0366**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Vanadium	**8.55**		**0.0687**	**0.458**	**mg/Kg**	1	27-Jun-2018 21:06
Zinc	**839**		**3.11**	**9.16**	**mg/Kg**	20	28-Jun-2018 10:54
TCLP MERCURY BY SW7470A		**Method:SW7470**		Leache:SW1311 / 28-Jun-2018	Prep:SW7470 / 29-Jun-2018		Analyst: JCJ
Mercury	**0.000413**		**0.0000300**	**0.000200**	**mg/L**	1	30-Jun-2018 11:09
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 29-Jun-2018		Analyst: JCJ
Mercury	**6.70**		**0.00490**	**0.0347**	**mg/Kg**	10	30-Jun-2018 17:50
OIL AND GREASE BY E1664A		**Method:E1664**			Prep:E1664 / 27-Jun-2018		Analyst: KAH
Oil and Grease	**47,700**		**100**	**100**	**mg/Kg**	1	02-Jul-2018 14:30
BURN RATE BY METHOD SW1030		**Method:SW1030**					Analyst: KAH
Ignitability, Solid	Negative		0	0	Burn Rate, mm/sec	1	02-Jul-2018 14:30
REACTIVE CYANIDE		**Method:SW7.3.3.2**			Prep:SW7.3.3.2		Analyst: MZD
Reactive Cyanide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:46
REACTIVE SULFIDE		**Method:SW7.3.4.2**					Analyst: MZD
Reactive Sulfide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:36
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**			Prep:SW3060A / 02-Jul-2018		Analyst: JHD
Chromium, Hexavalent	< 0.300		0.300	2.00	mg/kg	1	02-Jul-2018 14:15
CYANIDE		**Method:SW9014**			Prep:SW9010C / 28-Jun-2018		Analyst: KVL
Cyanide	< 0.296		0.296	1.98	mg/Kg	1	28-Jun-2018 13:20

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

ALS Group Houston, Corp Date: 10-Jul-18

Client:	Golder Associates Inc.	**ANALYTICAL REPORT**	
Project:	Former MCC Recycling Site	WorkOrder:HS18061286	
Sample ID:	USOR-GT-02-180625	Lab ID:HS18061286-03	
Collection Date:	25-Jun-2018 15:15	Matrix:Sludge	

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH SOIL BY SW9045D		**Method:SW9045B**					Analyst: KVL
pH	**7.01**	H	**0.100**	**0.100**	**pH Units**	1	27-Jun-2018 14:45
Temp Deg C @pH	**27.5**	H	**0**	**0**	**°C**	1	27-Jun-2018 14:45
TOTAL ORGANIC CARBON BY SW9060A		**Method:SW9060**			Prep:SW9060 / 29-Jun-2018		Analyst: KMU
Total Organic Carbon	**48.9**		**0.0600**	**0.0600**	**wt%-dry**	1	02-Jul-2018 14:00
PHENOLICS		**Method:SW9065**			Prep:SW9065 / 02-Jul-2018		Analyst: MZD
Phenolics, Total Recoverable	**5.85**		**1.00**	**2.50**	**mg/kg**	1	02-Jul-2018 15:49
SUB ANALYSIS AVAILABLE CYANIDE - EPA OIA-1667		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0		NA	1	02-Jul-2018 08:34
SUBCONTRACT ANALYSIS - METALS ANALYSIS		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	05-Jul-2018 14:31

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TCLP VOLATILES		**Method:SW1311/8260B**		Leache:SW1311 / 28-Jun-2018	Prep:SW1311 / 28-Jun-2018		Analyst: PC
1,1-Dichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:45
1,2-Dichloroethane	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:45
1,4-Dichlorobenzene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:45
2-Butanone	**0.15**	J	**0.020**	**0.20**	**mg/L**	20	03-Jul-2018 04:45
Benzene	**0.12**		**0.012**	**0.10**	**mg/L**	20	03-Jul-2018 04:45
Carbon tetrachloride	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:45
Chlorobenzene	< 0.0080		0.0080	0.10	mg/L	20	03-Jul-2018 04:45
Chloroform	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:45
Tetrachloroethene	< 0.012		0.012	0.10	mg/L	20	03-Jul-2018 04:45
Trichloroethene	< 0.010		0.010	0.10	mg/L	20	03-Jul-2018 04:45
Vinyl chloride	< 0.0080		0.0080	0.040	mg/L	20	03-Jul-2018 04:45
Surr: 1,2-Dichloroethane-d4	*89.5*			*70-126*	*%REC*	*20*	*03-Jul-2018 04:45*
Surr: 4-Bromofluorobenzene	*104*			*82-124*	*%REC*	*20*	*03-Jul-2018 04:45*
Surr: Dibromofluoromethane	*104*			*77-123*	*%REC*	*20*	*03-Jul-2018 04:45*
Surr: Toluene-d8	*105*			*82-127*	*%REC*	*20*	*03-Jul-2018 04:45*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
1,1,1-Trichloroethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
1,1,2,2-Tetrachloroethane	< 0.38		0.38	2.4	mg/Kg	500	03-Jul-2018 01:13
1,1,2-Trichlor-1,2,2-trifluoroethane	< 0.34		0.34	2.4	mg/Kg	500	03-Jul-2018 01:13
1,1,2-Trichloroethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
1,1-Dichloroethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2,4-Trichlorobenzene	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2-Dibromo-3-chloropropane	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2-Dibromoethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2-Dichlorobenzene	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2-Dichloroethane	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
1,2-Dichloropropane	< 0.38		0.38	2.4	mg/Kg	500	03-Jul-2018 01:13
1,3-Dichlorobenzene	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
1,4-Dichlorobenzene	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
2-Butanone	< 0.62		0.62	4.8	mg/Kg	500	03-Jul-2018 01:13
2-Chloroethyl vinyl ether	< 0.96		0.96	4.8	mg/Kg	500	03-Jul-2018 01:13
2-Hexanone	< 0.67		0.67	4.8	mg/Kg	500	03-Jul-2018 01:13
4-Methyl-2-pentanone	< 0.96		0.96	4.8	mg/Kg	500	03-Jul-2018 01:13
Acetone	< 0.96		0.96	9.6	mg/Kg	500	03-Jul-2018 01:13
Acrolein	< 0.96		0.96	9.6	mg/Kg	500	03-Jul-2018 01:13
Acrylonitrile	< 1.2		1.2	4.8	mg/Kg	500	03-Jul-2018 01:13
Benzene	**0.75**	J	**0.24**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
Bromodichloromethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Bromoform	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
Bromomethane	< 0.48		0.48	4.8	mg/Kg	500	03-Jul-2018 01:13
Carbon disulfide	< 0.29		0.29	4.8	mg/Kg	500	03-Jul-2018 01:13
Carbon tetrachloride	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
Chlorobenzene	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
Chloroethane	< 0.38		0.38	4.8	mg/Kg	500	03-Jul-2018 01:13
Chloroform	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Chloromethane	< 0.24		0.24	4.8	mg/Kg	500	03-Jul-2018 01:13
cis-1,2-Dichloroethene	< 0.38		0.38	2.4	mg/Kg	500	03-Jul-2018 01:13
cis-1,3-Dichloropropene	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Cyclohexane	< 0.48	n	0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
Dibromochloromethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Dichlorodifluoromethane	< 0.34		0.34	2.4	mg/Kg	500	03-Jul-2018 01:13
Ethylbenzene	**4.8**		**0.34**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
Isopropylbenzene	**1.6**	J	**0.43**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
m,p-Xylene	**19**		**0.77**	**4.8**	**mg/Kg**	500	03-Jul-2018 01:13

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Methyl acetate	< 0.34		0.34	2.4	mg/Kg	500	03-Jul-2018 01:13
Methyl tert-butyl ether	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Methylcyclohexane	< 0.48		0.48	2.4	mg/Kg	500	03-Jul-2018 01:13
Methylene chloride	< 0.48		0.48	4.8	mg/Kg	500	03-Jul-2018 01:13
o-Xylene	**11**		**0.48**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
Styrene	< 0.34		0.34	2.4	mg/Kg	500	03-Jul-2018 01:13
Tetrachloroethene	< 0.34		0.34	2.4	mg/Kg	500	03-Jul-2018 01:13
Toluene	**2.9**		**0.29**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
trans-1,2-Dichloroethene	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
trans-1,3-Dichloropropene	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
Trichloroethene	< 0.29		0.29	2.4	mg/Kg	500	03-Jul-2018 01:13
Trichlorofluoromethane	< 0.24		0.24	2.4	mg/Kg	500	03-Jul-2018 01:13
Vinyl chloride	< 0.38		0.38	0.96	mg/Kg	500	03-Jul-2018 01:13
Xylenes, Total	**30**		**0.48**	**2.4**	**mg/Kg**	500	03-Jul-2018 01:13
Surr: 1,2-Dichloroethane-d4	*103*			*70-126*	*%REC*	*500*	*03-Jul-2018 01:13*
Surr: 4-Bromofluorobenzene	*101*			*70-130*	*%REC*	*500*	*03-Jul-2018 01:13*
Surr: Dibromofluoromethane	*98.9*			*70-130*	*%REC*	*500*	*03-Jul-2018 01:13*
Surr: Toluene-d8	*101*			*70-130*	*%REC*	*500*	*03-Jul-2018 01:13*
TCLP SEMIVOLATILES		**Method:SW1311/8270**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510 / 29-Jun-2018		Analyst: SGA
2,4,5-Trichlorophenol	< 0.014		0.014	0.078	mg/L	10	29-Jun-2018 16:54
2,4,6-Trichlorophenol	< 0.022		0.022	0.078	mg/L	10	29-Jun-2018 16:54
2,4-Dinitrotoluene	< 0.016		0.016	0.078	mg/L	10	29-Jun-2018 16:54
Cresols, Total	**1.8**		**0.031**	**0.23**	**mg/L**	10	29-Jun-2018 16:54
Hexachlorobenzene	< 0.017		0.017	0.078	mg/L	10	29-Jun-2018 16:54
Hexachlorobutadiene	< 0.017		0.017	0.078	mg/L	10	29-Jun-2018 16:54
Hexachloroethane	< 0.016		0.016	0.078	mg/L	10	29-Jun-2018 16:54
Nitrobenzene	< 0.012		0.012	0.078	mg/L	10	29-Jun-2018 16:54
Pentachlorophenol	< 0.025		0.025	0.078	mg/L	10	29-Jun-2018 16:54
Pyridine	< 0.031		0.031	0.078	mg/L	10	29-Jun-2018 16:54
Surr: 2,4,6-Tribromophenol	*105*			*39-153*	*%REC*	*10*	*29-Jun-2018 16:54*
Surr: 2-Fluorobiphenyl	*86.3*			*40-147*	*%REC*	*10*	*29-Jun-2018 16:54*
Surr: 2-Fluorophenol	*61.9*	*J*		*21-110*	*%REC*	*10*	*29-Jun-2018 16:54*
Surr: 4-Terphenyl-d14	*92.4*			*39-141*	*%REC*	*10*	*29-Jun-2018 16:54*
Surr: Nitrobenzene-d5	*67.0*	*J*		*37-140*	*%REC*	*10*	*29-Jun-2018 16:54*
Surr: Phenol-d6	*73.3*	*J*		*11-110*	*%REC*	*10*	*29-Jun-2018 16:54*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
1,1´-Biphenyl	**3.7**		**0.068**	**0.26**	**mg/Kg**	10	03-Jul-2018 17:22
1,2-Diphenylhydrazine	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
2,4,5-Trichlorophenol	< 0.10		0.10	0.26	mg/Kg	10	03-Jul-2018 17:22
2,4,6-Trichlorophenol	< 0.068		0.068	0.26	mg/Kg	10	03-Jul-2018 17:22
2,4-Dichlorophenol	< 0.052		0.052	0.26	mg/Kg	10	03-Jul-2018 17:22
2,4-Dimethylphenol	< 0.13		0.13	0.26	mg/Kg	10	03-Jul-2018 17:22
2,4-Dinitrophenol	< 0.18		0.18	0.53	mg/Kg	10	03-Jul-2018 17:22
2,4-Dinitrotoluene	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22
2,6-Dinitrotoluene	< 0.13		0.13	0.26	mg/Kg	10	03-Jul-2018 17:22
2-Chloronaphthalene	< 0.052		0.052	0.26	mg/Kg	10	03-Jul-2018 17:22
2-Chlorophenol	< 0.052		0.052	0.26	mg/Kg	10	03-Jul-2018 17:22
2-Methylnaphthalene	**11**		**0.020**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
2-Methylphenol	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
2-Nitroaniline	< 0.076		0.076	0.26	mg/Kg	10	03-Jul-2018 17:22
2-Nitrophenol	< 0.10		0.10	0.26	mg/Kg	10	03-Jul-2018 17:22
3&4-Methylphenol	**27**		**0.40**	**2.6**	**mg/Kg**	100	03-Jul-2018 15:44
3,3´-Dichlorobenzidine	< 0.10		0.10	0.26	mg/Kg	10	03-Jul-2018 17:22
3-Nitroaniline	< 0.076		0.076	0.26	mg/Kg	10	03-Jul-2018 17:22
4,6-Dinitro-2-methylphenol	< 0.084		0.084	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Bromophenyl phenyl ether	< 0.064		0.064	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Chloro-3-methylphenol	< 0.028		0.028	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Chloroaniline	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Chlorophenyl phenyl ether	< 0.060		0.060	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Nitroaniline	< 0.088		0.088	0.26	mg/Kg	10	03-Jul-2018 17:22
4-Nitrophenol	< 0.076		0.076	0.53	mg/Kg	10	03-Jul-2018 17:22
Acenaphthene	**1.5**		**0.020**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Acenaphthylene	< 0.040		0.040	0.13	mg/Kg	10	03-Jul-2018 17:22
Acetophenone	< 0.032		0.032	0.26	mg/Kg	10	03-Jul-2018 17:22
Anthracene	**0.38**		**0.020**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Atrazine	< 0.080		0.080	0.26	mg/Kg	10	03-Jul-2018 17:22
Benz(a)anthracene	**0.52**		**0.064**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Benzaldehyde	< 0.048	n	0.048	0.26	mg/Kg	10	03-Jul-2018 17:22
Benzidine	**4.9**		**0.056**	**0.26**	**mg/Kg**	10	03-Jul-2018 17:22
Benzo(a)pyrene	< 0.040		0.040	0.13	mg/Kg	10	03-Jul-2018 17:22
Benzo(b)fluoranthene	< 0.048		0.048	0.13	mg/Kg	10	03-Jul-2018 17:22
Benzo(g,h,i)perylene	**0.21**		**0.028**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Benzo(k)fluoranthene	< 0.036		0.036	0.13	mg/Kg	10	03-Jul-2018 17:22
Bis(2-chloroethoxy)methane	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
Bis(2-chloroethyl)ether	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
Bis(2-chloroisopropyl)ether	< 0.056		0.056	0.26	mg/Kg	10	03-Jul-2018 17:22
Bis(2-ethylhexyl)phthalate	**4.1**		**0.068**	**0.26**	**mg/Kg**	10	03-Jul-2018 17:22
Butyl benzyl phthalate	< 0.052		0.052	0.26	mg/Kg	10	03-Jul-2018 17:22
Caprolactam	< 0.048		0.048	0.26	mg/Kg	10	03-Jul-2018 17:22
Carbazole	< 0.048		0.048	0.26	mg/Kg	10	03-Jul-2018 17:22
Chrysene	**0.73**		**0.032**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Di-n-butyl phthalate	**1.4**		**0.048**	**0.26**	**mg/Kg**	10	03-Jul-2018 17:22
Di-n-octyl phthalate	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22
Dibenz(a,h)anthracene	< 0.064		0.064	0.13	mg/Kg	10	03-Jul-2018 17:22
Dibenzofuran	< 0.028		0.028	0.13	mg/Kg	10	03-Jul-2018 17:22
Diethyl phthalate	< 0.040		0.040	0.26	mg/Kg	10	03-Jul-2018 17:22
Dimethyl phthalate	< 0.032		0.032	0.26	mg/Kg	10	03-Jul-2018 17:22
Fluoranthene	**0.34**		**0.044**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Fluorene	**1.7**		**0.044**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Hexachlorobenzene	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22
Hexachlorobutadiene	< 0.048		0.048	0.26	mg/Kg	10	03-Jul-2018 17:22
Hexachlorocyclopentadiene	< 0.032		0.032	0.26	mg/Kg	10	03-Jul-2018 17:22
Hexachloroethane	< 0.060		0.060	0.26	mg/Kg	10	03-Jul-2018 17:22
Indeno(1,2,3-cd)pyrene	< 0.032		0.032	0.13	mg/Kg	10	03-Jul-2018 17:22
Isophorone	< 0.032		0.032	0.26	mg/Kg	10	03-Jul-2018 17:22
N-Nitrosodi-n-propylamine	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
N-Nitrosodimethylamine	< 0.048		0.048	0.26	mg/Kg	10	03-Jul-2018 17:22
N-Nitrosodiphenylamine	< 0.028		0.028	0.26	mg/Kg	10	03-Jul-2018 17:22
Naphthalene	**17**		**0.24**	**1.3**	**mg/Kg**	100	03-Jul-2018 15:44
Nitrobenzene	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22
Pentachlorophenol	< 0.13		0.13	0.26	mg/Kg	10	03-Jul-2018 17:22
Phenanthrene	**2.8**		**0.060**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Phenol	< 0.044		0.044	0.26	mg/Kg	10	03-Jul-2018 17:22
Pyrene	**1.3**		**0.024**	**0.13**	**mg/Kg**	10	03-Jul-2018 17:22
Pyridine	< 0.036		0.036	0.26	mg/Kg	10	03-Jul-2018 17:22
Surr: 2,4,6-Tribromophenol	*89.8*			*36-126*	*%REC*	*10*	*03-Jul-2018 17:22*
Surr: 2,4,6-Tribromophenol	*0*	*S*		*36-126*	*%REC*	*100*	*03-Jul-2018 15:44*
Surr: 2-Fluorobiphenyl	*0*	*S*		*43-125*	*%REC*	*100*	*03-Jul-2018 15:44*
Surr: 2-Fluorobiphenyl	*102*			*43-125*	*%REC*	*10*	*03-Jul-2018 17:22*
Surr: 2-Fluorophenol	*89.7*			*37-125*	*%REC*	*10*	*03-Jul-2018 17:22*
Surr: 2-Fluorophenol	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:44*
Surr: 4-Terphenyl-d14	*104*			*32-125*	*%REC*	*10*	*03-Jul-2018 17:22*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL SEMIVOLATILES BY 8270D		**Method:SW8270**			Prep:SW3541 / 28-Jun-2018		Analyst: ACN
Surr: 4-Terphenyl-d14	*0*	*S*		*32-125*	*%REC*	*100*	*03-Jul-2018 15:44*
Surr: Nitrobenzene-d5	*0*	*S*		*37-125*	*%REC*	*100*	*03-Jul-2018 15:44*
Surr: Nitrobenzene-d5	*95.1*			*37-125*	*%REC*	*10*	*03-Jul-2018 17:22*
Surr: Phenol-d6	*82.3*			*40-125*	*%REC*	*10*	*03-Jul-2018 17:22*
Surr: Phenol-d6	*0*	*S*		*40-125*	*%REC*	*100*	*03-Jul-2018 15:44*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 27-Jun-2018		Analyst: MBG
nC6 to nC12	**7,500**		**490**	**3300**	**mg/Kg**	50	02-Jul-2018 10:54
>nC12 to nC28	**25,000**		**640**	**3300**	**mg/Kg**	50	02-Jul-2018 10:54
>nC28 to nC35	**7,000**		**640**	**3300**	**mg/Kg**	50	02-Jul-2018 10:54
Total Petroleum Hydrocarbon	**39,500**		**490**	**3300**	**mg/Kg**	50	02-Jul-2018 10:54
Surr: 2-Fluorobiphenyl	*0*	*S*		*70-130*	*%REC*	*50*	*02-Jul-2018 10:54*
Surr: Trifluoromethyl benzene	*0*	*S*		*70-130*	*%REC*	*50*	*02-Jul-2018 10:54*
TCLP PESTICIDES BY SW8081B		**Method:SW1311/8081A**		Leache:SW1311 / 28-Jun-2018	Prep:SW3510C/3665A / 28-Jun-2018		Analyst: STH
Chlordane	< 0.00020		0.00020	0.00051	mg/L	1	03-Jul-2018 05:00
Endrin	< 0.000031		0.000031	0.00010	mg/L	1	03-Jul-2018 05:00
gamma-BHC	< 0.000010		0.000010	0.000051	mg/L	1	03-Jul-2018 05:00
Heptachlor	< 0.000010		0.000010	0.000051	mg/L	1	03-Jul-2018 05:00
Heptachlor epoxide	< 0.000010		0.000010	0.000051	mg/L	1	03-Jul-2018 05:00
Methoxychlor	< 0.00015		0.00015	0.00051	mg/L	1	03-Jul-2018 05:00
Toxaphene	< 0.00020		0.00020	0.00051	mg/L	1	03-Jul-2018 05:00
Surr: Decachlorobiphenyl	*202*	*S*		*30-150*	*%REC*	*1*	*03-Jul-2018 05:00*
Surr: Tetrachloro-m-xylene	*322*	*S*		*30-150*	*%REC*	*1*	*03-Jul-2018 05:00*
TCLP HERBICIDES BY SW8151A		**Method:SW1311/8150**		Leache:SW1311 / 28-Jun-2018	Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	**0.00073**	P	**0.000053**	**0.00021**	**mg/L**	1	30-Jun-2018 14:38
2,4-D	< 0.000063		0.000063	0.00021	mg/L	1	30-Jun-2018 14:38
Surr: DCAA	*146*	*S*		*40-140*	*%REC*	*1*	*30-Jun-2018 14:38*

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		**Method:SW8081**			Prep:SW3541 / 28-Jun-2018		Analyst: STH
4,4´-DDD	< 0.0010		0.0010	0.0066	mg/Kg	1	09-Jul-2018 19:04
4,4´-DDE	**0.021**		**0.0010**	**0.0066**	**mg/Kg**	1	09-Jul-2018 19:04
4,4´-DDT	**0.019**	P	**0.0010**	**0.0066**	**mg/Kg**	1	09-Jul-2018 19:04
Aldrin	**0.013**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 19:04
alpha-BHC	< 0.00060		0.00060	0.0033	mg/Kg	1	09-Jul-2018 19:04
beta-BHC	**0.037**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 19:04
Chlordane	< 0.0040		0.0040	0.033	mg/Kg	1	09-Jul-2018 19:04
delta-BHC	**0.029**	P	**0.00040**	**0.0033**	**mg/Kg**	1	09-Jul-2018 19:04
Dieldrin	**0.0021**	J	**0.0010**	**0.0066**	**mg/Kg**	1	09-Jul-2018 19:04
Endosulfan I	< 0.00060		0.00060	0.0033	mg/Kg	1	09-Jul-2018 19:04
Endosulfan II	**0.0075**	P	**0.0012**	**0.0066**	**mg/Kg**	1	09-Jul-2018 19:04
Endosulfan sulfate	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 19:04
Endrin	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 19:04
Endrin aldehyde	< 0.0012		0.0012	0.0066	mg/Kg	1	09-Jul-2018 19:04
gamma-BHC	< 0.00040		0.00040	0.0033	mg/Kg	1	09-Jul-2018 19:04
Heptachlor	**0.0096**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 19:04
Heptachlor epoxide	**0.022**	P	**0.00060**	**0.0033**	**mg/Kg**	1	09-Jul-2018 19:04
Methoxychlor	< 0.0068		0.0068	0.033	mg/Kg	1	09-Jul-2018 19:04
Toxaphene	< 0.0096		0.0096	0.033	mg/Kg	1	09-Jul-2018 19:04
Surr: Decachlorobiphenyl	*178*	*S*		*59-144*	*%REC*	*1*	*09-Jul-2018 19:04*
Surr: Tetrachloro-m-xylene	*122*			*56.9-130*	*%REC*	*1*	*09-Jul-2018 19:04*
CHLORINATED HERBICIDES BY SW8151A		**Method:SW8151**			Prep:SW8151 / 28-Jun-2018		Analyst: STH
2,4,5-TP (Silvex)	< 0.0034		0.0034	0.0066	mg/Kg	1	30-Jun-2018 19:21
2,4-D	< 0.0014		0.0014	0.013	mg/Kg	1	30-Jun-2018 19:21
Surr: DCAA	*111*			*30-150*	*%REC*	*1*	*30-Jun-2018 19:21*
TRIVALENT CHROMIUM		**Method:Calculation**					Analyst: DQ
Chromium, Trivalent	**15.5**	n	**0.700**	**5.00**	**mg/Kg**	1	03-Jul-2018 17:48
TCLP METALS BY SW6020A		**Method:SW1311/6020**		Leache:SW1311 / 28-Jun-2018	Prep:SW3010A / 28-Jun-2018		Analyst: JCJ
Arsenic	**0.00558**	J	**0.00400**	**0.0500**	**mg/L**	1	29-Jun-2018 00:16
Barium	**0.0435**	J	**0.0190**	**0.200**	**mg/L**	1	29-Jun-2018 00:16
Cadmium	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:16
Chromium	**0.0181**	J	**0.00400**	**0.0500**	**mg/L**	1	29-Jun-2018 00:16
Lead	< 0.00600		0.00600	0.0500	mg/L	1	29-Jun-2018 00:16
Selenium	< 0.0110		0.0110	0.0500	mg/L	1	29-Jun-2018 00:16
Silver	< 0.00200		0.00200	0.0500	mg/L	1	29-Jun-2018 00:16

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

ALS Group Houston, Corp Date: 10-Jul-18

Client: Golder Associates Inc.
Project: Former MCC Recycling Site
Sample ID: USOR-DUP-02-180625
Collection Date: 25-Jun-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18061286
Lab ID:HS18061286-04
Matrix:Sludge

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 27-Jun-2018		Analyst: JCJ
Antimony	**20.6**		**0.0608**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Arsenic	**1.14**		**0.0655**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Barium	**158**		**0.0281**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Beryllium	**0.0407**	J	**0.0196**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Boron	**7.68**		**0.720**	**2.34**	**mg/Kg**	1	27-Jun-2018 21:08
Cadmium	**0.343**	J	**0.0253**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Chromium	**15.5**		**0.0215**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Cobalt	**5.11**		**0.0140**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Copper	**27.1**		**0.0356**	**0.187**	**mg/Kg**	1	27-Jun-2018 21:08
Lead	**13.0**		**0.0122**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Molybdenum	**111**		**0.0168**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Nickel	**32.5**		**0.0449**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Selenium	**0.215**	J	**0.0851**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Silver	**0.260**	J	**0.0140**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Thallium	< 0.209		0.209	0.468	mg/Kg	1	27-Jun-2018 21:08
Tin	**8.06**		**0.0599**	**1.40**	**mg/Kg**	1	27-Jun-2018 21:08
Titanium	**49.3**		**0.0374**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Vanadium	**8.42**		**0.0702**	**0.468**	**mg/Kg**	1	27-Jun-2018 21:08
Zinc	**758**		**7.95**	**23.4**	**mg/Kg**	50	28-Jun-2018 10:56
TCLP MERCURY BY SW7470A		**Method:SW7470**		Leache:SW1311 / 28-Jun-2018	Prep:SW7470 / 29-Jun-2018		Analyst: JCJ
Mercury	**0.000335**		**0.0000300**	**0.000200**	**mg/L**	1	30-Jun-2018 11:11
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 29-Jun-2018		Analyst: JCJ
Mercury	**3.61**		**0.00506**	**0.0358**	**mg/Kg**	10	30-Jun-2018 17:52
OIL AND GREASE BY E1664A		**Method:E1664**			Prep:E1664 / 27-Jun-2018		Analyst: KAH
Oil and Grease	**55,400**		**100**	**100**	**mg/Kg**	1	02-Jul-2018 14:30
BURN RATE BY METHOD SW1030		**Method:SW1030**					Analyst: KAH
Ignitability, Solid	Negative		0	0	Burn Rate, mm/sec	1	02-Jul-2018 14:30
REACTIVE CYANIDE		**Method:SW7.3.3.2**			Prep:SW7.3.3.2		Analyst: MZD
Reactive Cyanide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:46
REACTIVE SULFIDE		**Method:SW7.3.4.2**					Analyst: MZD
Reactive Sulfide	< 100	n	100	100	mg/Kg	1	29-Jun-2018 16:36
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**			Prep:SW3060A / 02-Jul-2018		Analyst: JHD
Chromium, Hexavalent	< 0.298		0.298	1.99	mg/kg	1	02-Jul-2018 14:15
CYANIDE		**Method:SW9014**			Prep:SW9010C / 28-Jun-2018		Analyst: KVL
Cyanide	< 0.275		0.275	1.83	mg/Kg	1	28-Jun-2018 13:20

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

ALS Group Houston, Corp Date: 10-Jul-18

Client:	Golder Associates Inc.	**ANALYTICAL REPORT**	
Project:	Former MCC Recycling Site	WorkOrder:HS18061286	
Sample ID:	USOR-DUP-02-180625	Lab ID:HS18061286-04	
Collection Date:	25-Jun-2018 00:00	Matrix:Sludge	

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH SOIL BY SW9045D		**Method:SW9045B**					Analyst: KVL
pH	**7.03**	H	**0.100**	**0.100**	**pH Units**	1	27-Jun-2018 14:45
Temp Deg C @pH	**27.7**	H	**0**	**0**	**°C**	1	27-Jun-2018 14:45
TOTAL ORGANIC CARBON BY SW9060A		**Method:SW9060**			Prep:SW9060 / 29-Jun-2018		Analyst: KMU
Total Organic Carbon	**47.5**		**0.0600**	**0.0600**	**wt%-dry**	1	02-Jul-2018 14:00
PHENOLICS		**Method:SW9065**			Prep:SW9065 / 02-Jul-2018		Analyst: MZD
Phenolics, Total Recoverable	**23.8**		**0.999**	**2.50**	**mg/kg**	1	02-Jul-2018 15:49
SUB ANALYSIS AVAILABLE CYANIDE - EPA OIA-1667		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0		NA	1	02-Jul-2018 08:34
SUBCONTRACT ANALYSIS - METALS ANALYSIS		**Method:NA**					Analyst: SUBFC
Subcontract Analysis	See Attached		0		NA	1	05-Jul-2018 14:31

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

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 183975

HS18061286

Golder Associates Inc.
Former MCC Recycling Site

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Former MCC Recycling Site Solids	A	8260 VOCs , *5035*/TX1005 TPH
Work Order		Project Number		B	Hex Cr, Tri Cr, pH, Ignitability
Company Name	Golder Associates Inc.	Bill To Company	Golder Associates Inc.	C	8270 SVOC, 8081 Pest/PCB, 8151 Herb
Send Report To	Eric Pastor	Invoice Attn	Accounts Payable	D	6020/7471/6010 Total Metals (18)/Hg/Bismuth
Address	11231 Richmond Avenue Suite D104	Address	11231 Richmond Avenue Suite D104	E	Phenols / TOC
				F	Total Cyanide / Available Cyanide
City/State/Zip	Houston, TX 77082	City/State/Zip	Houston TX 77082	G	Oil & Grease
Phone	(832) 916-3691	Phone	(832) 916-3691	H	TCLP VOC
Fax		Fax		I	TCLP SVOC, TCLP Pests, TCLP Herbs, TCLP RCRA8
e-Mail Address	Eric_Pastor@golder.com	e-Mail Address	Accounting@pbwllc.com	J	RCI

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	USOR-LS#1-01-180625	6/25/18	1350	Solid	8,9	5	X	X	X	X	X	X	X	X	X	X	
2	USOR-GT-01-180625	|	1510	|	|	|	X	X	X	X	X	X	X	X	X	X	
3	USOR-GT-02-180625	|	1515	|	|	|	X	X	X	X	X	X	X	X	X	X	
4	USOR-DUP-02-180625	|	—	|	|	|	X	X	X	X	X	X	X	X	X	X	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Kate Phillips / Scott Actwater
Kate Phillips/Scott Actwater

Shipment Method: drop off

Required Turnaround Time: (Check Box) ☐ Other ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Kate Phillips Date: 6/25/18 Time: 1645
Received by:
Relinquished by: Date: Time:
Received by (Laboratory): 6/25/18 18:45
Logged by (Laboratory): Date: Time:
Checked by (Laboratory):

Notes: MCC Recycling Site

Cooler ID	Cooler Temp.
	ok
44633	2.6°
	ok
	2.1-3.5

QC Package: (Check One Box Below)
☒ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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.

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ALS Group, USA

Date: 30-Jun-18

Client: ALS Environmental
Project: HS18061286
Work Order: **18061774**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
18061774-01	HS18061286-01	Sludge	USOR-LS#1-01-180625	6/25/2018 13:50	6/27/2018 09:30	☐
18061774-02	HS18061286-02	Sludge	USOR-GT-01-180625	6/25/2018 15:10	6/27/2018 09:30	☐
18061774-03	HS18061286-03	Sludge	USOR-GT-02-180625	6/25/2018 15:15	6/27/2018 09:30	☐
18061774-04	HS18061286-04	Sludge	USOR-DUP-02-180625	6/25/2018	6/27/2018 09:30	☐

ALS Group, USA

Date: 30-Jun-18

Client: ALS Environmental
Project: HS18061286
WorkOrder: **18061774**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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.

Acronym	Description
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

Units Reported	Description
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram

ALS Group, USA

Date: *30-Jun-18*

Client: ALS Environmental
Project: HS18061286
Sample ID: HS18061286-01
Collection Date: 6/25/2018 01:50 PM

Work Order: 18061774
Lab ID: 18061774-01
Matrix: SLUDGE

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, AVAILABLE		Method:	**OIA 1677**		Prep: SW9013 / 6/28/18		Analyst: **MB**
Cyanide, Available	**220**		**24**	**39**	**µg/Kg**	1	6/29/2018 10:00
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**87**		**0.025**	**0.050**	**% of sample**	1	6/28/2018 14:45

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

ALS Group, USA

Date: *30-Jun-18*

Client: ALS Environmental
Project: HS18061286
Sample ID: HS18061286-02
Collection Date: 6/25/2018 03:10 PM

Work Order: 18061774
Lab ID: 18061774-02
Matrix: SLUDGE

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, AVAILABLE		Method:	**OIA 1677**		Prep: SW9013 / 6/28/18		Analyst: **MB**
Cyanide, Available	**360**		**24**	**40**	**µg/Kg**	1	6/29/2018 10:00
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**83**		**0.025**	**0.050**	**% of sample**	1	6/28/2018 14:45

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

ALS Group, USA

Date: *30-Jun-18*

Client: ALS Environmental
Project: HS18061286
Sample ID: HS18061286-03
Collection Date: 6/25/2018 03:15 PM

Work Order: 18061774
Lab ID: 18061774-03
Matrix: SLUDGE

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, AVAILABLE		Method:	**OIA 1677**		Prep: SW9013 / 6/28/18		Analyst: **MB**
Cyanide, Available	**770**		**24**	**40**	**µg/Kg**	1	6/29/2018 10:00
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**81**		**0.025**	**0.050**	**% of sample**	1	6/28/2018 14:45

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

ALS Group, USA

Date: *30-Jun-18*

Client: ALS Environmental
Project: HS18061286
Sample ID: HS18061286-04
Collection Date: 6/25/2018

Work Order: 18061774
Lab ID: 18061774-04
Matrix: SLUDGE

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
CYANIDE, AVAILABLE		Method:	**OIA 1677**		Prep: SW9013 / 6/28/18		Analyst: **MB**
Cyanide, Available	**1,800**		**24**	**40**	**µg/Kg**	1	6/29/2018 10:00
MOISTURE		Method:	**SW3550C**				Analyst: **NW**
Moisture	**85**		**0.025**	**0.050**	**% of sample**	1	6/28/2018 14:45

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

18061774

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

COC ID: 9347

SUBCONTRACT TO:

ALS Laboratory Group
3352 128th Ave.
Holland, MI 494249263

Phone: +1 616 399 6070

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact:
Email:

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS18061286
TSR: Jennifer Bell

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS18061286-01**	**USOR-LS#1-01-180625**	**Sludge**	**25 Jun 2018 13:50**
	Avail.CN;Lvl2 MDL PDF,Exce EDD,5d TAT			02 Jul 2018
2.	**HS18061286-02**	**USOR-GT-01-180625**	**Sludge**	**25 Jun 2018 15:10**
	Avail.CN;Lvl2 MDL PDF,Exce EDD,5d TAT			02 Jul 2018
3.	**HS18061286-03**	**USOR-GT-02-180625**	**Sludge**	**25 Jun 2018 15:15**
	Avail.CN;Lvl2 MDL PDF,Exce EDD,5d TAT			02 Jul 2018
4.	**HS18061286-04**	**USOR-DUP-02-180625**	**Sludge**	**25 Jun 2018 00:00**
	Avail.CN;Lvl2 MDL PDF,Exce EDD,5d TAT			02 Jul 2018

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Relinquished By: _____ Date/Time: 6/26/18 1800

Received By: _____ Date/Time: 6/27/18 0930

Cooler ID(s): _____ Temperature(s): SR2 3.4°c

ALS Group, USA

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **27-Jun-18 09:30**

Work Order: **18061774** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 27-Jun-18 (Date) Reviewed by: Chad Whelton (eSignature) 28-Jun-18 (Date)

Matrices: Sludge
Carrier name: FedEx

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 3.4/3.4 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 6/27/2018 2:28:44 PM

	Yes	No		
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted	☑
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1806667
Client Name: ALS Environmental
Client Project Name:
Client Project Number: HS18061286
Client PO Number: 10-9346

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
USOR-LW#1-01-180625	1806667-1		SLUDGE	25-Jun-18	13:50
USOR-GT-01-180625	1806667-2		SLUDGE	25-Jun-18	15:10
USOR-GT-02-180625	1806667-3		SLUDGE	25-Jun-18	15:15
USOR-DUP-01-180625	1806667-4		SLUDGE	25-Jun-18	

1806667

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

COC ID: 9346

SUBCONTRACT TO:

ALS Environmental, Fort Collins
225 Commerce Drive
Fort Collins, CO 80524

Phone: +1 970 490 1511

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact:
Email:

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS18061286
TSR: Jennifer Bell

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS18061286-01**	**USOR-LS#1-01-180625**	**Sludge**	**25 Jun 2018 13:50**
	Bismuth;Lvl2 MDL PDF,Excel EDD;5d TAT			02 Jul 2018
2.	**HS18061286-02**	**USOR-GT-01-180625**	**Sludge**	**25 Jun 2018 15:10**
	Bismuth;Lvl2 MDL PDF,Excel EDD;5d TAT			02 Jul 2018
3.	**HS18061286-03**	**USOR-GT-02-180625**	**Sludge**	**25 Jun 2018 15:15**
	Bismuth;Lvl2 MDL PDF,Excel EDD;5d TAT			02 Jul 2018
4.	**HS18061286-04**	**USOR-DUP-02-180625**	**Sludge**	**25 Jun 2018 00:00**
	Bismuth;Lvl2 MDL PDF,Excel EDD;5d TAT			02 Jul 2018

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Relinquished By: _____ Date/Time: 6/26/18 1800.

Received By: _____ Date/Time: 6/27/18 10:25

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS Tx Workorder No: 1806667

Project Manager: JK Initials: MJ Date: 6/27/18

1.	Does this project require any special handling in addition to standard ALS procedures?		YES	NO
2.	Are custody seals on shipping containers intact?	NONE	YES	NO
3.	Are Custody seals on sample containers intact?	NONE	YES	NO
4.	Is there a COC (Chain-of-Custody) present or other representative documents?		YES	NO
5.	Are the COC and bottle labels complete and legible?		YES	NO
6.	Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		YES	NO
7.	Were airbills / shipping documents present and/or removable?	DROP OFF	YES	NO
8.	Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	NO
9.	Are all aqueous non-preserved samples pH 4-9?	N/A	YES	NO
10.	Is there sufficient sample for the requested analyses?		YES	NO
11.	Were all samples placed in the proper containers for the requested analyses?		YES	NO
12.	Are all samples within holding times for the requested analyses?		YES	NO
13.	Were all sample containers received intact? (not broken or leaking, etc.)		YES	NO
14.	Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____> green pea	N/A	YES	NO
15.	Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____heavy	N/A	YES	NO
16.	Were the samples shipped on ice?		YES	NO
17.	Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #1 #3 #4	RAD ONLY	YES	NO

Cooler #:	1							
Temperature (°C):	23.0							
No. of custody seals on cooler:	2							
DOT Survey/ Acceptance Information — External µR/hr reading:	13							
Background µR/hr reading:	12							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / NA** (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 6-27-18

*IR Gun #1, VWR SN 170560549
*IR Gun #3, VWR SN 170647571
*IR Gun #4, Oakton, SN 2372220101-0002

Form 201r25.xls
(02/12/2018)

Client:	ALS Environmental	**Date:**	*02-Jul-18*
Project:	HS18061286	**Work Order:**	1806667
Sample ID:	USOR-LW#1-01-180625	**Lab ID:**	1806667-1
Legal Location:		**Matrix:**	SLUDGE
Collection Date:	6/25/2018 13:50	**Percent Moisture:**	86.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ICP Metals		**SW6010**		Prep Date: **6/28/2018**		PrepBy: **JML**
BISMUTH	**33000**		**15000**	**UG/KG**	1	6/29/2018 13:12

Client:	ALS Environmental	**Date:**	*02-Jul-18*
Project:	HS18061286	**Work Order:**	1806667
Sample ID:	USOR-GT-01-180625	**Lab ID:**	1806667-2
Legal Location:		**Matrix:**	SLUDGE
Collection Date:	6/25/2018 15:10	**Percent Moisture:**	80.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ICP Metals		**SW6010**		Prep Date: **6/28/2018**		PrepBy: **JML**
BISMUTH	ND		10000	UG/KG	1	6/29/2018 13:15

Client:	ALS Environmental	**Date:**	*02-Jul-18*
Project:	HS18061286	**Work Order:**	1806667
Sample ID:	USOR-GT-02-180625	**Lab ID:**	1806667-3
Legal Location:		**Matrix:**	SLUDGE
Collection Date:	6/25/2018 15:15	**Percent Moisture:**	73.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ICP Metals		**SW6010**		Prep Date: **6/28/2018**		PrepBy: **JML**
BISMUTH	ND		7400	UG/KG	1	6/29/2018 13:18

Client:	ALS Environmental	**Date:**	*02-Jul-18*
Project:	HS18061286	**Work Order:**	1806667
Sample ID:	USOR-DUP-01-180625	**Lab ID:**	1806667-4
Legal Location:		**Matrix:**	SLUDGE
Collection Date:	6/25/2018	**Percent Moisture:**	83.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ICP Metals		**SW6010**		Prep Date: **6/28/2018**		PrepBy: **JML**
BISMUTH	ND		11000	UG/KG	1	6/29/2018 13:21

Client:	ALS Environmental	**Date:**	*02-Jul-18*
Project:	HS18061286	**Work Order:**	1806667
Sample ID:	USOR-DUP-01-180625	**Lab ID:**	1806667-4
Legal Location:		**Matrix:**	SLUDGE
Collection Date:	6/25/2018	**Percent Moisture:**	83.0

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
U or ND - Result is less than the sample specific MDC.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
Y2 - Chemical Yield outside default limits.
W - DER is greater than Warning Limit of 1.42
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
G - Sample density differs by more than 15% of LCS density.
D - DER is greater than Control Limit
M - Requested MDC not met.
LT - Result is less than requested MDC but greater than achieved MDC.
M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
L - LCS Recovery below lower control limit.
H - LCS Recovery above upper control limit.
P - LCS, Matrix Spike Recovery within control limits.
N - Matrix Spike Recovery outside control limits
NC - Not Calculated for duplicate results less than 5 times MDC
B - Analyte concentration greater than MDC.
B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
U or ND - Indicates that the compound was analyzed for but not detected.
E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
M - Duplicate injection precision was not met.
N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
* - Duplicate analysis (relative percent difference) not within control limits.
S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
E - Analyte concentration exceeds the upper level of the calibration range.
J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
A - A tentatively identified compound is a suspected aldol-condensation product.
X - The analyte was diluted below an accurate quantitation level.
* - The spike recovery is equal to or outside the control criteria used.
+ - The relative percent difference (RPD) equals or exceeds the control criteria.
G - A pattern resembling gasoline was detected in this sample.
D - A pattern resembling diesel was detected in this sample.
M - A pattern resembling motor oil was detected in this sample.
C - A pattern resembling crude oil was detected in this sample.
4 - A pattern resembling JP-4 was detected in this sample.
5 - A pattern resembling JP-5 was detected in this sample.
H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C