The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

Hydro-Environmental Technology, Inc.

8060.00 Indigo-Desoto Parish, LA

SGS Job Number: LA56776

Sampling Date: 08/07/19

Report to:

Hydro-Environmental Technology
P.O. BOX 60295
Lafayette, LA 70596
labdata@hetinc.us

ATTN: Stewart L Stover, Jr.

Total number of pages in report: **116**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Ron Benjamin
Lab Director

Client Service contact: Ralph Frye 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), AZ(AZ0805), FL(E87657), IL(200082), KY(#31), NC(487), SC(73004001), NJ(LA007), TX(T104704186-18-16), WV(257)

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SGS North America Inc.

Sample Summary

Hydro-Environmental Technology, Inc.

8060.00 Indigo-Desoto Parish, LA

Job No: LA56776

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the RL							
LA56776-1	08/07/19	07:55	KC/LV	08/09/19	AQ	Trip Blank Water	TRIP BLANK
LA56776-2	08/07/19	08:00	KC/LV	08/09/19	AQ	Field Blank Water	FIELD BLANK
LA56776-3	08/07/19	10:30	KC/LV	08/09/19	AQ	Water	031-829 (DAVID MASON RELIEF WELL)
LA56776-3F	08/07/19	10:30	KC/LV	08/09/19	AQ	Water Filtered	031-829 (DAVID MASON RELIEF WELL)
LA56776-4	08/07/19	11:45	KC/LV	08/09/19	AQ	Water	031-836 (BESSIE MCMICHAEL RELIEF WELL)
LA56776-4F	08/07/19	11:45	KC/LV	08/09/19	AQ	Water Filtered	031-836 (BESSIE MCMICHAEL RELIEF WELL)
LA56776-5	08/07/19	12:30	KC/LV	08/09/19	AQ	Water	SN 152126 (ARDIS MARTIN RELIEF WELL)
LA56776-5F	08/07/19	12:30	KC/LV	08/09/19	AQ	Water Filtered	SN 152126 (ARDIS MARTIN RELIEF WELL)
LA56776-6	08/07/19	16:05	KC/LV	08/09/19	AQ	Water	031-9825Z (BILLINGSLEY RELIEF WELL)
LA56776-6F	08/07/19	16:05	KC/LV	08/09/19	AQ	Water Filtered	031-9825Z (BILLINGSLEY RELIEF WELL)
LA56776-7	08/07/19	09:00	KC/LV	08/09/19	AQ	Water	031-802 (DERBONNE RELIEF WELL)
LA56776-7F	08/07/19	09:00	KC/LV	08/09/19	AQ	Water Filtered	031-802 (DERBONNE RELIEF WELL)

Sample Summary
(continued)

Hydro-Environmental Technology, Inc.

Job No: LA56776

8060.00 Indigo-Desoto Parish, LA

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
LA56776-8	08/07/19	07:00	KC/LV	08/09/19	AQ	Trip Blank Water	TRIP BLANK
LA56776-9	08/07/19	07:55	KC/LV	08/09/19	AQ	Field Blank Water	FIELD BLANK

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	LA56776-1	**Date Sampled:**	08/07/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063025.D	1	08/13/19 03:04	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	LA56776-1	**Date Sampled:**	08/07/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%		81-120%
2037-26-5	Toluene-D8	100%		93-105%
460-00-4	4-Bromofluorobenzene	97%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	LA56776-2	**Date Sampled:**	08/07/19
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063027.D	1	08/13/19 03:35	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	LA56776-2	**Date Sampled:**	08/07/19
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	117%		81-120%
2037-26-5	Toluene-D8	96%		93-105%
460-00-4	4-Bromofluorobenzene	94%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063029.D	1	08/13/19 04:06	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	0.165	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		81-120%
2037-26-5	Toluene-D8	97%		93-105%
460-00-4	4-Bromofluorobenzene	93%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0028620.D	1	08/14/19 17:58	AA	08/13/19 11:00	OP14901	EL757
Run #2							

	Initial Volume	Final Volume
Run #1	110 ml	1.0 ml
Run #2		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0045	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0045	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0045	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.018	mg/l	
100-02-7	4-Nitrophenol	ND	0.023	mg/l	
87-86-5	Pentachlorophenol	ND	0.00091	mg/l	
108-95-2	Phenol	ND	0.0045	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0045	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0045	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0045	mg/l	
83-32-9	Acenaphthene	ND	0.00018	mg/l	
208-96-8	Acenaphthylene	ND	0.00018	mg/l	
62-53-3	Aniline	ND	0.0045	mg/l	
120-12-7	Anthracene	ND	0.00018	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00018	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00018	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0091	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0045	mg/l	
106-47-8	4-Chloroaniline	ND	0.0045	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0045	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0045	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0045	mg/l	
218-01-9	Chrysene	ND	0.00018	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00018	mg/l	
132-64-9	Dibenzofuran	ND	0.0045	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0091	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0045	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0045	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0045	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0045	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0045	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0045	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0045	mg/l	
206-44-0	Fluoranthene	ND	0.00018	mg/l	
86-73-7	Fluorene	ND	0.00018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00091	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00045	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0091	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00018	mg/l	
78-59-1	Isophorone	ND	0.0045	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00018	mg/l	
91-20-3	Naphthalene	ND	0.00018	mg/l	
88-74-4	2-Nitroaniline	ND	0.0045	mg/l	
99-09-2	3-Nitroaniline	ND	0.0045	mg/l	
100-01-6	4-Nitroaniline	ND	0.0045	mg/l	
98-95-3	Nitrobenzene	ND	0.00091	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0045	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0045	mg/l	
85-01-8	Phenanthrene	ND	0.00018	mg/l	
129-00-0	Pyrene	ND	0.00018	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00091	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0045	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	63%		25-101%
4165-62-2	Phenol-d5	51%		17-79%
118-79-6	2,4,6-Tribromophenol	97%		40-144%
4165-60-0	Nitrobenzene-d5	92%		40-124%
321-60-8	2-Fluorobiphenyl	61%		27-124%
1718-51-0	Terphenyl-d14	91%		45-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC045925.D	1	08/12/19 22:13	NN	n/a	n/a	GLC2295
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	0.229	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	115% [a]		70-130%
615-59-8	2,5-Dibromotoluene	98% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM001994.D	1	08/14/19 16:01	SV	08/14/19 10:30	OP14908	GLM49
Run #2							

	Initial Volume	Final Volume
Run #1	33.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	0.000021	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	108%		60-140%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0010974.D	1	08/13/19 22:29	PC	08/12/19 09:00	OP14888	GLB1999
Run #2	Y0011023.D	1	08/15/19 00:14	PC	08/12/19 09:00	OP14888	GLB2004

	Initial Volume	Final Volume
Run #1	54.7 ml	4.0 ml
Run #2	54.7 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND [a]	0.14	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		114%	40-140%
84-15-1	o-Terphenyl	86%		40-140%
321-60-8	2-Fluorobiphenyl	84%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Barium	0.412	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	9.70	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Iron	8.50	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	2.99	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Manganese	0.113	0.020	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	2.25	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	397	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Strontium	0.681	0.020	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	642	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Carbonate [a]	< 5.0	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	645	5.0	mg/l	1	08/13/19 16:30	ATX	SM 2320B-2011
Bromide [a]	0.82	0.60	mg/l	1	08/14/19 12:48	ATX	SW846 9056A
Chloride [a]	98.2	7.0	mg/l	10	08/14/19 16:28	ATX	SW846 9056A
Silica, Dissolved [a]	22.0	0.70	mg/l	10	08/14/19	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	1000	10	mg/l	1	08/12/19	ATX	SM 2540C-2011
Specific Conductivity [b]	1660	1.0	umhos/cm	1	08/12/19 17:20	ATX	EPA 120.1
Sulfate [a]	0.55	0.50	mg/l	1	08/14/19 12:48	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-829 (DAVID MASON RELIEF WELL)		
Lab Sample ID:	LA56776-3F	**Date Sampled:**	08/07/19
Matrix:	AQ - Water Filtered	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.387	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	15.4	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	6.77	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	3.29	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	0.121	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	3.16	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	481	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.785	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063031.D	1	08/13/19 04:37	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	0.0789	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	0.0665	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	0.0105	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	0.0141	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		81-120%
2037-26-5	Toluene-D8	99%		93-105%
460-00-4	4-Bromofluorobenzene	97%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0028621.D	1	08/14/19 18:23	AA	08/13/19 11:00	OP14901	EL757
Run #2 [a]	L0028673.D	1	08/15/19 19:14	AA	08/15/19 07:55	OP14912	EL759

	Initial Volume	Final Volume
Run #1	113 ml	1.0 ml
Run #2	110 ml	1.0 ml

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0044	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0044	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0044	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.018	mg/l	
100-02-7	4-Nitrophenol	ND	0.022	mg/l	
87-86-5	Pentachlorophenol	ND	0.00088	mg/l	
108-95-2	Phenol	ND	0.0044	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0044	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0044	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0044	mg/l	
83-32-9	Acenaphthene	ND	0.00018	mg/l	
208-96-8	Acenaphthylene	ND	0.00018	mg/l	
62-53-3	Aniline	ND	0.0044	mg/l	
120-12-7	Anthracene	ND	0.00018	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00018	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00018	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0088	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0044	mg/l	
106-47-8	4-Chloroaniline	ND	0.0044	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0044	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0044	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0044	mg/l	
218-01-9	Chrysene	ND	0.00018	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00018	mg/l	
132-64-9	Dibenzofuran	ND	0.0044	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0088	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0044	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0044	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0044	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0044	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0044	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0044	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0044	mg/l	
206-44-0	Fluoranthene	ND	0.00018	mg/l	
86-73-7	Fluorene	ND	0.00018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00088	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00044	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0088	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00018	mg/l	
78-59-1	Isophorone	ND	0.0044	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00018	mg/l	
91-20-3	Naphthalene	ND	0.00018	mg/l	
88-74-4	2-Nitroaniline	ND	0.0044	mg/l	
99-09-2	3-Nitroaniline	ND	0.0044	mg/l	
100-01-6	4-Nitroaniline	ND	0.0044	mg/l	
98-95-3	Nitrobenzene	ND	0.00088	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0044	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0044	mg/l	
85-01-8	Phenanthrene	ND	0.00018	mg/l	
129-00-0	Pyrene	ND	0.00018	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00088	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0044	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	26%	37%	25-101%
4165-62-2	Phenol-d5	21%	30%	17-79%
118-79-6	2,4,6-Tribromophenol	38% [b]	60%	40-144%
4165-60-0	Nitrobenzene-d5	44%	63%	40-124%
321-60-8	2-Fluorobiphenyl	32%	53%	27-124%
1718-51-0	Terphenyl-d14	41%	56%	45-140%

(a) Sample extracted beyond hold time. Confirmation run.
(b) Outside control limits biased low. Sample was re-extracted out of hold. Sample results confirm.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC045926.D	1	08/12/19 22:45	NN	n/a	n/a	GLC2295
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	0.190	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	112% [a]		70-130%
615-59-8	2,5-Dibromotoluene	98% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM001995.D	1	08/14/19 16:21	SV	08/14/19 10:30	OP14908	GLM49
Run #2							

	Initial Volume	Final Volume
Run #1	34.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	0.000020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	112%		60-140%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0010975.D	1	08/13/19 22:52	PC	08/12/19 09:00	OP14888	GLB1999
Run #2	Y0011024.D	1	08/15/19 00:38	PC	08/12/19 09:00	OP14888	GLB2004

	Initial Volume	Final Volume
Run #1	53.6 ml	4.0 ml
Run #2	53.6 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND [a]	0.14	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		104%	40-140%
84-15-1	o-Terphenyl	84%		40-140%
321-60-8	2-Fluorobiphenyl	78%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	77.2	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Arsenic	0.0378	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Barium	7.65	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	25.4	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Chromium	0.131	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Iron	102	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	0.0756	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	38.1	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Manganese	2.23	0.020	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Mercury	0.00071	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	14.7	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	654	1.0	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Strontium	1.23	0.020	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Zinc	0.494	0.050	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	1190	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Carbonate [a]	26.3	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	1220	5.0	mg/l	1	08/13/19 16:30	ATX	SM 2320B-2011
Bromide [a]	0.66	0.60	mg/l	1	08/14/19 13:05	ATX	SW846 9056A
Chloride [a]	53.5	3.5	mg/l	5	08/14/19 16:44	ATX	SW846 9056A
Silica, Dissolved [a]	22.0	0.70	mg/l	10	08/14/19	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	1680	40	mg/l	1	08/12/19	ATX	SM 2540C-2011
Specific Conductivity [b]	2530	1.0	umhos/cm	1	08/12/19 17:20	ATX	EPA 120.1
Sulfate [a]	1.6	0.50	mg/l	1	08/14/19 13:05	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-836 (BESSIE MCMICHAEL RELIEF WELL)		
Lab Sample ID:	LA56776-4F	**Date Sampled:**	08/07/19
Matrix:	AQ - Water Filtered	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	12.2	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.618	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	9.63	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.0179	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	11.5	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	6.52	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	0.255	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	6.08	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	785	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.601	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	0.0594	0.050	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063033.D	1	08/13/19 05:08	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	0.0250	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	0.0148	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	106%		81-120%
2037-26-5	Toluene-D8	98%		93-105%
460-00-4	4-Bromofluorobenzene	96%		89-107%

ND = Not detected
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0028622.D	1	08/14/19 18:48	AA	08/13/19 11:00	OP14901	EL757
Run #2							

	Initial Volume	Final Volume
Run #1	113 ml	1.0 ml
Run #2		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0044	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0044	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0044	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.018	mg/l	
100-02-7	4-Nitrophenol	ND	0.022	mg/l	
87-86-5	Pentachlorophenol	ND	0.00088	mg/l	
108-95-2	Phenol	ND	0.0044	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0044	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0044	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0044	mg/l	
83-32-9	Acenaphthene	ND	0.00018	mg/l	
208-96-8	Acenaphthylene	ND	0.00018	mg/l	
62-53-3	Aniline	ND	0.0044	mg/l	
120-12-7	Anthracene	ND	0.00018	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00018	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00018	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0088	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0044	mg/l	
106-47-8	4-Chloroaniline	ND	0.0044	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0044	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0044	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0044	mg/l	
218-01-9	Chrysene	ND	0.00018	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00018	mg/l	
132-64-9	Dibenzofuran	ND	0.0044	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0088	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0044	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0044	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0044	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0044	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0044	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0044	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0044	mg/l	
206-44-0	Fluoranthene	ND	0.00018	mg/l	
86-73-7	Fluorene	ND	0.00018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00088	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00044	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0088	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00018	mg/l	
78-59-1	Isophorone	ND	0.0044	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00018	mg/l	
91-20-3	Naphthalene	ND	0.00018	mg/l	
88-74-4	2-Nitroaniline	ND	0.0044	mg/l	
99-09-2	3-Nitroaniline	ND	0.0044	mg/l	
100-01-6	4-Nitroaniline	ND	0.0044	mg/l	
98-95-3	Nitrobenzene	ND	0.00088	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0044	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0044	mg/l	
85-01-8	Phenanthrene	ND	0.00018	mg/l	
129-00-0	Pyrene	ND	0.00018	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00088	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0044	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		25-101%
4165-62-2	Phenol-d5	52%		17-79%
118-79-6	2,4,6-Tribromophenol	107%		40-144%
4165-60-0	Nitrobenzene-d5	101%		40-124%
321-60-8	2-Fluorobiphenyl	73%		27-124%
1718-51-0	Terphenyl-d14	95%		45-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC045927.D	1	08/12/19 23:16	NN	n/a	n/a	GLC2295
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	106% [a]		70-130%
615-59-8	2,5-Dibromotoluene	92% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM001997.D	1	08/14/19 16:58	SV	08/14/19 10:30	OP14908	GLM49
Run #2							

	Initial Volume	Final Volume
Run #1	34.0 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	0.000021	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	105%		60-140%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0010976.D	1	08/13/19 23:15	PC	08/12/19 09:00	OP14888	GLB1999
Run #2	Y0011025.D	1	08/15/19 01:01	PC	08/12/19 09:00	OP14888	GLB2004

	Initial Volume	Final Volume
Run #1	54.6 ml	4.0 ml
Run #2	54.6 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND [a]	0.14	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		80%	40-140%
84-15-1	o-Terphenyl	79%		40-140%
321-60-8	2-Fluorobiphenyl	83%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.0515	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	2.75	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	2.28	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	0.0421	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	1.64	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	384	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.118	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	543	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Carbonate [a]	11.4	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	555	5.0	mg/l	1	08/13/19 16:30	ATX	SM 2320B-2011
Bromide [a]	0.73	0.60	mg/l	1	08/14/19 13:21	ATX	SW846 9056A
Chloride [a]	78.0	7.0	mg/l	10	08/14/19 17:35	ATX	SW846 9056A
Silica, Dissolved [a]	22.5	0.70	mg/l	10	08/14/19	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	798	10	mg/l	1	08/12/19	ATX	SM 2540C-2011
Specific Conductivity [b]	1310	1.0	umhos/cm	1	08/12/19 17:20	ATX	EPA 120.1
Sulfate [a]	< 0.50	0.50	mg/l	1	08/14/19 13:21	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	SN 152126 (ARDIS MARTIN RELIEF WELL)		
Lab Sample ID:	LA56776-5F	**Date Sampled:**	08/07/19
Matrix:	AQ - Water Filtered	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.0277	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	2.41	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	< 1.0	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	0.0265	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	1.54	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	375	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.104	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063035.D	1	08/13/19 05:39	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	116%		81-120%
2037-26-5	Toluene-D8	98%		93-105%
460-00-4	4-Bromofluorobenzene	93%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0028623.D	1	08/14/19 19:13	AA	08/13/19 11:00	OP14901	EL757
Run #2							

	Initial Volume	Final Volume
Run #1	113 ml	1.0 ml
Run #2		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0044	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0044	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0044	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.018	mg/l	
100-02-7	4-Nitrophenol	ND	0.022	mg/l	
87-86-5	Pentachlorophenol	ND	0.00088	mg/l	
108-95-2	Phenol	ND	0.0044	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0044	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0044	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0044	mg/l	
83-32-9	Acenaphthene	ND	0.00018	mg/l	
208-96-8	Acenaphthylene	ND	0.00018	mg/l	
62-53-3	Aniline	ND	0.0044	mg/l	
120-12-7	Anthracene	ND	0.00018	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00018	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00018	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0088	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0044	mg/l	
106-47-8	4-Chloroaniline	ND	0.0044	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0044	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0044	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0044	mg/l	
218-01-9	Chrysene	ND	0.00018	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00018	mg/l	
132-64-9	Dibenzofuran	ND	0.0044	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0088	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0044	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0044	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0044	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0044	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0044	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0044	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0044	mg/l	
206-44-0	Fluoranthene	ND	0.00018	mg/l	
86-73-7	Fluorene	ND	0.00018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00088	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00044	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0088	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00018	mg/l	
78-59-1	Isophorone	ND	0.0044	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.00018	mg/l	
91-20-3	Naphthalene	ND	0.00018	mg/l	
88-74-4	2-Nitroaniline	ND	0.0044	mg/l	
99-09-2	3-Nitroaniline	ND	0.0044	mg/l	
100-01-6	4-Nitroaniline	ND	0.0044	mg/l	
98-95-3	Nitrobenzene	ND	0.00088	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0044	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0044	mg/l	
85-01-8	Phenanthrene	ND	0.00018	mg/l	
129-00-0	Pyrene	ND	0.00018	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00088	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0044	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		25-101%
4165-62-2	Phenol-d5	44%		17-79%
118-79-6	2,4,6-Tribromophenol	83%		40-144%
4165-60-0	Nitrobenzene-d5	83%		40-124%
321-60-8	2-Fluorobiphenyl	60%		27-124%
1718-51-0	Terphenyl-d14	79%		45-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC045928.D	1	08/12/19 23:47	NN	n/a	n/a	GLC2295
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	106% [a]		70-130%
615-59-8	2,5-Dibromotoluene	92% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM001998.D	1	08/14/19 17:17	SV	08/14/19 10:30	OP14908	GLM49
Run #2							

	Initial Volume	Final Volume
Run #1	34.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	0.000020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	110%		60-140%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y0011027.D	1	08/15/19 01:47	PC	08/12/19 09:00	OP14888	GLB2004
Run #2	X0010978.D	1	08/14/19 00:00	PC	08/12/19 09:00	OP14888	GLB1999

	Initial Volume	Final Volume
Run #1	52.7 ml	4.0 ml
Run #2	52.7 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	105%		40-140%
84-15-1	o-Terphenyl		84%	40-140%
321-60-8	2-Fluorobiphenyl		87%	40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 031-9825Z (BILLINGSLEY RELIEF WELL)
Lab Sample ID: LA56776-6
Matrix: AQ - Water
Project: 8060.00 Indigo-Desoto Parish, LA

Date Sampled: 08/07/19
Date Received: 08/09/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	29.2	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	0.0154	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.283	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	14.7	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	0.0533	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	40.7	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	0.0336	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	16.3	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	1.05	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	6.63	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	284	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.468	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	0.193	0.050	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	402	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Carbonate [a]	22.3	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	425	5.0	mg/l	1	08/13/19 16:30	ATX	SM 2320B-2011
Bromide [a]	0.61	0.60	mg/l	1	08/14/19 14:12	ATX	SW846 9056A
Chloride [a]	56.6	3.5	mg/l	5	08/14/19 17:52	ATX	SW846 9056A
Silica, Dissolved [a]	14.4	0.70	mg/l	10	08/14/19	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	620	40	mg/l	1	08/12/19	ATX	SM 2540C-2011
Specific Conductivity [b]	1010	1.0	umhos/cm	1	08/12/19 17:20	ATX	EPA 120.1
Sulfate [a]	0.65	0.50	mg/l	1	08/14/19 14:12	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-9825Z (BILLINGSLEY RELIEF WELL)		
Lab Sample ID:	LA56776-6F	**Date Sampled:**	08/07/19
Matrix:	AQ - Water Filtered	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.0172	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	1.51	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	< 1.0	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	< 0.020	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	1.18	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	294	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.0665	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063037.D	1	08/13/19 06:10	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	0.0076	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	0.0364	0.0050	mg/l	
95-47-6	o-Xylene	0.0154	0.0050	mg/l	
1330-20-7	Xylene (total)	0.0519	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	117%		81-120%
2037-26-5	Toluene-D8	98%		93-105%
460-00-4	4-Bromofluorobenzene	102%		89-107%

ND = Not detected
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L0028624.D	1	08/14/19 19:38	AA	08/13/19 11:00	OP14901	EL757
Run #2							

	Initial Volume	Final Volume
Run #1	110 ml	1.0 ml
Run #2		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.0045	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0045	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0045	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.018	mg/l	
100-02-7	4-Nitrophenol	ND	0.023	mg/l	
87-86-5	Pentachlorophenol	ND	0.00091	mg/l	
108-95-2	Phenol	ND	0.0045	mg/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.0045	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0045	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0045	mg/l	
83-32-9	Acenaphthene	ND	0.00018	mg/l	
208-96-8	Acenaphthylene	ND	0.00018	mg/l	
62-53-3	Aniline	ND	0.0045	mg/l	
120-12-7	Anthracene	ND	0.00018	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.00018	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.00018	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.00018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.00018	mg/l	
92-52-4	1,1'-Biphenyl	ND	0.0091	mg/l	
85-68-7	Butyl Benzyl Phthalate	ND	0.0045	mg/l	
106-47-8	4-Chloroaniline	ND	0.0045	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0045	mg/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	0.0045	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0045	mg/l	
218-01-9	Chrysene	ND	0.00018	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.00018	mg/l	
132-64-9	Dibenzofuran	ND	0.0045	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.0091	mg/l	
84-66-2	Diethyl Phthalate	ND	0.0045	mg/l	
131-11-3	Dimethyl Phthalate	ND	0.0045	mg/l	
117-84-0	Di-n-octyl Phthalate	ND	0.0045	mg/l	
99-65-0	1,3-Dinitrobenzene	ND	0.0045	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

ABN RECAP LIST

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.0045	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0045	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0045	mg/l	
206-44-0	Fluoranthene	ND	0.00018	mg/l	
86-73-7	Fluorene	ND	0.00018	mg/l	
118-74-1	Hexachlorobenzene	ND	0.00091	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.00045	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.0091	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.00018	mg/l	
78-59-1	Isophorone	ND	0.0045	mg/l	
91-57-6	2-Methylnaphthalene	0.0014	0.00018	mg/l	
91-20-3	Naphthalene	0.00070	0.00018	mg/l	
88-74-4	2-Nitroaniline	ND	0.0045	mg/l	
99-09-2	3-Nitroaniline	ND	0.0045	mg/l	
100-01-6	4-Nitroaniline	ND	0.0045	mg/l	
98-95-3	Nitrobenzene	ND	0.00091	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0045	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0045	mg/l	
85-01-8	Phenanthrene	ND	0.00018	mg/l	
129-00-0	Pyrene	ND	0.00018	mg/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.00091	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0045	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		25-101%
4165-62-2	Phenol-d5	43%		17-79%
118-79-6	2,4,6-Tribromophenol	82%		40-144%
4165-60-0	Nitrobenzene-d5	83%		40-124%
321-60-8	2-Fluorobiphenyl	55%		27-124%
1718-51-0	Terphenyl-d14	78%		45-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC045929.D	1	08/13/19 00:18	NN	n/a	n/a	GLC2295
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile Petroleum Hydrocarbons (VPH)

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	0.15	mg/l	
	Aliphatics > C8-C10 (Unadj.)	ND	0.15	mg/l	
	Aromatics > C8-C10 (Unadj.)	ND	0.15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	118% [a]		70-130%
615-59-8	2,5-Dibromotoluene	98% [b]		70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LM001999.D	1	08/14/19 17:36	SV	08/14/19 10:30	OP14908	GLM49
Run #2							

	Initial Volume	Final Volume
Run #1	33.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	0.000021	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
348-51-6	1-Chloro-2-fluorobenzene	108%		60-140%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
Method:	MADEP EPH REV 1.1 SW846 3511	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0010979.D	1	08/14/19 00:23	PC	08/12/19 09:00	OP14888	GLB1999
Run #2	Y0011028.D	1	08/15/19 02:11	PC	08/12/19 09:00	OP14888	GLB2004

	Initial Volume	Final Volume
Run #1	52.6 ml	4.0 ml
Run #2	52.6 ml	4.0 ml

Louisiana EPH Ranges

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C12-C16 (Unadj.)	ND [a]	0.14	mg/l	
	Aliphatics > C16-C35 (Unadj.)	0.166 [a]	0.14	mg/l	
	Aromatics > C10-C12 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C12-C16 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C16-C21 (Unadj.)	ND	0.14	mg/l	
	Aromatics > C21-C35 (Unadj.)	ND	0.14	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane		90%	40-140%
84-15-1	o-Terphenyl	80%		40-140%
321-60-8	2-Fluorobiphenyl	82%		40-140%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 031-802 (DERBONNE RELIEF WELL)
Lab Sample ID: LA56776-7
Matrix: AQ - Water
Project: 8060.00 Indigo-Desoto Parish, LA

Date Sampled: 08/07/19
Date Received: 08/09/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	1.62	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	2.10	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	< 1.0	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	0.0286	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	1.25	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	294	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.235	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	031-802 (DERBONNE RELIEF WELL)		
Lab Sample ID:	LA56776-7	**Date Sampled:**	08/07/19
Matrix:	AQ - Water	**Date Received:**	08/09/19
		Percent Solids:	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate [a]	473	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Carbonate [a]	31.5	5.0	mg/l	1	08/13/19 16:30	ATX	SM18 2320B
Alkalinity, Total as CaCO3 [a]	505	5.0	mg/l	1	08/13/19 16:30	ATX	SM 2320B-2011
Bromide [a]	0.74	0.60	mg/l	1	08/14/19 14:29	ATX	SW846 9056A
Chloride [a]	68.9	7.0	mg/l	10	08/14/19 18:09	ATX	SW846 9056A
Silica, Dissolved [a]	20.0	0.70	mg/l	10	08/14/19	ATX	SM4500SIO2 C-2011
Solids, Total Dissolved [a]	706	10	mg/l	1	08/12/19	ATX	SM 2540C-2011
Specific Conductivity [b]	1180	1.0	umhos/cm	1	08/12/19 17:20	ATX	EPA 120.1
Sulfate [a]	1.5	0.50	mg/l	1	08/14/19 14:29	ATX	SW846 9056A

(a) Analysis performed at SGS Houston, TX.
(b) Conductivity results corrected to 25 degrees Celsius. Analysis performed at SGS Houston, TX.

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID: 031-802 (DERBONNE RELIEF WELL)
Lab Sample ID: LA56776-7F
Matrix: AQ - Water Filtered
Project: 8060.00 Indigo-Desoto Parish, LA

Date Sampled: 08/07/19
Date Received: 08/09/19
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Arsenic	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Barium	0.563	0.010	mg/l	10	08/12/19	08/13/19	RT	SW846 6020A [2]	SW846 3010A [5]
Cadmium	< 0.0050	0.0050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Calcium	2.75	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Chromium	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Iron	< 1.0	1.0	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Lead	< 0.010	0.010	mg/l	10	08/12/19	08/14/19	RT	SW846 6020A [4]	SW846 3010A [5]
Magnesium	< 1.0	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Manganese	< 0.020	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Mercury	< 0.00020	0.00020	mg/l	1	08/12/19	08/13/19	SA	SW846 7470A [3]	SW846 7470A [6]
Potassium	1.30	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Selenium	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Silver	< 0.010	0.010	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Sodium	287	1.0	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Strontium	0.211	0.020	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]
Zinc	< 0.050	0.050	mg/l	10	08/12/19	08/12/19	RT	SW846 6020A [1]	SW846 3010A [5]

(1) Instrument QC Batch: MA16617
(2) Instrument QC Batch: MA16621
(3) Instrument QC Batch: MA16623
(4) Instrument QC Batch: MA16638
(5) Prep QC Batch: MP16027
(6) Prep QC Batch: MP16033

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	LA56776-8	**Date Sampled:**	08/07/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063039.D	1	08/13/19 06:41	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	LA56776-8	**Date Sampled:**	08/07/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	118%		81-120%
2037-26-5	Toluene-D8	99%		93-105%
460-00-4	4-Bromofluorobenzene	95%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	LA56776-9	**Date Sampled:**	08/07/19
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2I063041.D	1	08/13/19 07:12	CP	n/a	n/a	V2I2291
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	0.050	mg/l	
71-43-2	Benzene	ND	0.0050	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	mg/l	
75-25-2	Bromoform	ND	0.0010	mg/l	
75-15-0	Carbon Disulfide	ND	0.0010	mg/l	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	mg/l	
75-00-3	Chloroethane	ND	0.0010	mg/l	
67-66-3	Chloroform	ND	0.0010	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0010	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/l	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0050	mg/l	
67-72-1	Hexachloroethane	ND	0.0010	mg/l	
78-83-1	Isobutyl Alcohol	ND	0.10	mg/l	
74-83-9	Methyl Bromide	ND	0.0010	mg/l	
74-87-3	Methyl Chloride	ND	0.0010	mg/l	
75-09-2	Methylene Chloride	ND	0.0010	mg/l	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	LA56776-9	**Date Sampled:**	08/07/19
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/19
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	8060.00 Indigo-Desoto Parish, LA		

VOA RECAP List

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0050	mg/l	
100-42-5	Styrene	ND	0.0010	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/l	
108-88-3	Toluene	0.0085	0.0050	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	mg/l	
75-01-4	Vinyl Chloride	ND	0.0010	mg/l	
	m,p-Xylene	ND	0.0050	mg/l	
95-47-6	o-Xylene	ND	0.0050	mg/l	
1330-20-7	Xylene (total)	ND	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	120%		81-120%
2037-26-5	Toluene-D8	98%		93-105%
460-00-4	4-Bromofluorobenzene	95%		89-107%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
P.O. Box 60295
Lafayette, LA 70596-0295
Phone (337) 261-1963 FAX (337) 261-1953

LA 56776

SAMPLE CHAIN-OF-CUSTODY RECORD

Laboratory:	SGS Lafayette		
Project Name:	Indigo	*Collected By:*	KC / LV / DC
Project Number:	8060.00	*Company:*	Hydro-Environmental Technology, Inc.
Project Location:	DeSoto Parish, Louisiana	*Date:*	8/7/2019

	Sample I.D.	Type	Date/Time Sampled		Containers	Analysis Requested/Method	Comments	
1	Trip Blank	AQ	8/7/2019	7:55	(6) 40mL Glass w/HCl	VOC 8260	4°C	6
2	Field Blank	AQ	8/7/2019	8:00	(6) 40mL Glass w/HCl	VOC 8260	4°C	6
3	031-829 (David Mason Relief Well)	AQ	8/7/2019	10:30	(6) 40mL Glass w/HCl (3) 60mL Glass w/HCl (2) 4oz amber (2) 250 mL plastic w/Nitric (1) 500 mL plastic	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C	14
4	031-836 (Bessie McMichael Relief Well)	AQ	8/7/2019	11:45	(6) 40mL Glass w/HCl (3) 60mL Glass w/HCl (2) 4oz amber (2) 250 mL plastic w/Nitric (1) 500 mL plastic	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C	14
5	SN 152126 (Ardis Martin Relief Well)	AQ	8/7/2019	12:30	(6) 40mL Glass w/HCl (3) 60mL Glass w/HCl (2) 4oz amber (2) 250 mL plastic w/Nitric (1) 500 mL plastic	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C	14

*Metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, strontium, zinc
*Cations: aluminum, calcium, iron, magnesium, manganese, potassium, sodium
*Anions: bromide, sulfate, carbonate alkalinity, bicarbonate alkalinity

Relinquished By: [signature]	Received By: Mark Reed
Date/Time: 8/9/19 1110	Date/Time: 8-9-19 11:10
Relinquished By:	Received By:
Date/Time:	Date/Time:

Analysis Due: Verbal: Written:
Moisture RMM-5 (VW) WS-13 (11) D2 RRM-18 (1) B2
Temp: 4.9, 3.2 DW439 3W2 3W2F (OL) Client d/o

LA56776: Chain of Custody
Page 1 of 3

HYDRO-ENVIRONMENTAL TECHNOLOGY, INC.
Environmental Consultants
P.O. Box 60295
Lafayette, LA 70596-0295
Phone (337) 261-1963 FAX (337) 261-1953

LA 56776

SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name:	Indigo	*Laboratory:*	SGS Lafayette
Project Number:	8060.00	*Collected By:*	KC / LV / DC
Project Location:	DeSoto Parish, Louisiana	*Company:*	Hydro-Environmental Technology, Inc.
		Date:	8/7/2019

	Sample I.D.	Type	Date/Time Sampled		Containers	Analysis Requested/Method	Comments	
6	031-9825Z (Billingsley Relief Well)	AQ	8/7/2019	16:05	(6) 40mL Glass w/HCl (3) 60mL Glass w/HCl (2) 4oz amber (2) 250 mL plastic w/Nitric (1) 500 mL plastic	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C	14
7	031-802 (Derbonne Relief Well)	AQ	8/8/2019	9:00	(6) 40mL Glass w/HCl (3) 60mL Glass w/HCl (2) 4oz amber (2) 250 mL plastic w/Nitric (1) 500 mL plastic	VOC 8260, SVOC 8270, VPH, EPH, Chlorides, TDS, Specific Conductance, Silica, Cations*, Anions*, Total Metals*, Dissolved Metals*	4°C	14
8	Trip Blank	AQ	8/8/2019	7:00	(6) 40mL Glass w/HCl	VOC 8260	4°C	6
9	Field Blank	AQ	8/8/2019	7:55	(6) 40mL Glass w/HCl	VOC 8260	4°C	6

*Metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, strontium, zinc
*Cations: aluminum, calcium, iron, magnesium, manganese, potassium, sodium
*Anions: bromide, sulfate, carbonate alkalinity, bicarbonate alkalinity

Relinquished By:	Received By: Mark Reed
Date/Time: 8/9/19 1110	Date/Time: 8-9-19 11.10
Relinquished By:	Received By:
Date/Time:	Date/Time:
Analysis Due: Verbal:	Written:

LA56776: Chain of Custody
Page 2 of 3

SGS Sample Receipt Summary

Job Number: LA56776 **Client:** HYDRO - ENV. **Project:** INDIGO

Date / Time Received: 8/9/2019 11:10:00 AM **Delivery Method:** Client **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (4.9/4.9); #2: (3.2/3.2); DV439

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☑	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	DV439;		
3. Cooler media:	Ice (direct contact)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Comments

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

LA56776: Chain of Custody
Page 3 of 3

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2I2291-MB2	2I063011.D	1	08/12/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
75-15-0	Carbon Disulfide	ND	1.0	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
67-72-1	Hexachloroethane	ND	1.0	ug/l	
78-83-1	Isobutyl Alcohol	ND	100	ug/l	
74-83-9	Methyl Bromide	ND	1.0	ug/l	
74-87-3	Methyl Chloride	ND	1.0	ug/l	
75-09-2	Methylene Chloride	ND	1.0	ug/l	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2I2291-MB2	2I063011.D	1	08/12/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	2.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	106%	81-120%
2037-26-5	Toluene-D8	98%	93-105%
460-00-4	4-Bromofluorobenzene	96%	89-107%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2I2291-BS1	2I063005.D	1	08/12/19	CP	n/a	n/a	V2I2291
V2I2291-BSD1	2I063007.D	1	08/12/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	38.3	77	39.1	78	2	35-173/20
71-43-2	Benzene	20	18.6	93	18.7	94	1	82-119/11
75-27-4	Bromodichloromethane	20	18.9	95	19.0	95	1	76-124/11
75-25-2	Bromoform	20	16.2	81	15.8	79	2	52-131/14
75-15-0	Carbon Disulfide	20	19.0	95	18.1	91	5	69-135/14
56-23-5	Carbon Tetrachloride	20	18.2	91	17.4	87	4	73-127/13
108-90-7	Chlorobenzene	20	18.5	93	18.2	91	2	82-118/11
75-00-3	Chloroethane	20	17.7	89	16.3	82	8	57-146/20
67-66-3	Chloroform	20	18.4	92	17.9	90	3	77-122/12
124-48-1	Dibromochloromethane	20	17.1	86	17.5	88	2	68-126/12
96-12-8	1,2-Dibromo-3-chloropropane	20	17.5	88	15.7	79	11	57-132/17
541-73-1	m-Dichlorobenzene	20	19.4	97	18.6	93	4	78-122/12
95-50-1	o-Dichlorobenzene	20	19.0	95	18.3	92	4	78-122/12
106-46-7	p-Dichlorobenzene	20	18.9	95	18.6	93	2	79-119/12
75-34-3	1,1-Dichloroethane	20	18.4	92	18.2	91	1	77-124/14
107-06-2	1,2-Dichloroethane	20	18.6	93	18.5	93	1	71-124/11
75-35-4	1,1-Dichloroethylene	20	17.2	86	17.8	89	3	77-125/14
156-59-2	cis-1,2-Dichloroethylene	20	18.5	93	18.4	92	1	79-121/13
156-60-5	trans-1,2-Dichloroethylene	20	19.2	96	18.0	90	6	77-124/14
540-59-0	1,2-Dichloroethene (total)	40	37.7	94	36.4	91	4	80-121/13
78-87-5	1,2-Dichloropropane	20	19.1	96	18.7	94	2	81-117/11
10061-01-5	cis-1,3-Dichloropropene	20	18.0	90	17.8	89	1	77-123/11
10061-02-6	trans-1,3-Dichloropropene	20	17.6	88	17.6	88	0	74-127/12
542-75-6	1,3-Dichloropropene (total)	40	35.6	89	35.4	89	1	76-124/11
100-41-4	Ethylbenzene	20	19.5	98	19.3	97	1	82-120/11
67-72-1	Hexachloroethane	20	17.1	86	16.0	80	7	54-132/15
78-83-1	Isobutyl Alcohol	200	160	80	182	91	13	37-152/30
74-83-9	Methyl Bromide	20	24.1	121	23.0	115	5	46-165/20
74-87-3	Methyl Chloride	20	26.8	134	26.0	130	3	55-140/18
75-09-2	Methylene Chloride	20	19.3	97	18.4	92	5	73-132/14
78-93-3	Methyl Ethyl Ketone	50	41.7	83	42.3	85	1	55-149/19
108-10-1	4-Methyl-2-pentanone	50	48.6	97	50.6	101	4	63-137/17
1634-04-4	Methyl Tert Butyl Ether	20	19.2	96	19.8	99	3	73-124/14
100-42-5	Styrene	20	17.9	90	18.1	91	1	80-126/12
630-20-6	1,1,1,2-Tetrachloroethane	20	18.8	94	19.0	95	1	77-126/12
79-34-5	1,1,2,2-Tetrachloroethane	20	19.2	96	19.2	96	0	69-134/14

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2I2291-BS1	2I063005.D	1	08/12/19	CP	n/a	n/a	V2I2291
V2I2291-BSD1	2I063007.D	1	08/12/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	19.0	95	18.2	91	4	79-121/13
108-88-3	Toluene	20	18.9	95	18.6	93	2	82-118/12
71-55-6	1,1,1-Trichloroethane	20	19.2	96	18.5	93	4	79-126/13
79-00-5	1,1,2-Trichloroethane	20	17.9	90	18.2	91	2	80-120/12
79-01-6	Trichloroethylene	20	18.5	93	18.4	92	1	78-121/12
75-69-4	Trichlorofluoromethane	20	16.8	84	16.3	82	3	74-129/14
75-01-4	Vinyl Chloride	20	17.1	86	16.5	83	4	74-125/14
	m,p-Xylene	40	40.0	100	40.1	100	0	82-123/11
95-47-6	o-Xylene	20	20.5	103	20.3	102	1	81-123/11
1330-20-7	Xylene (total)	60	60.5	101	60.3	101	0	82-122/11

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	97%	95%	81-120%
2037-26-5	Toluene-D8	99%	100%	93-105%
460-00-4	4-Bromofluorobenzene	100%	102%	89-107%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA56691-4MS	2I063045.D	20	08/13/19	CP	n/a	n/a	V2I2291
LA56691-4MSD	2I063047.D	20	08/13/19	CP	n/a	n/a	V2I2291
LA56691-4 [a]	2I063043.D	20	08/13/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	LA56691-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2650		1000	3350	70	1000	3420	77	2	11-126/22
71-43-2	Benzene	2660		400	3150	123	400	3290	158* [b]	4	41-155/14
75-27-4	Bromodichloromethane	ND		400	380	95	400	402	101	6	65-125/14
75-25-2	Bromoform	ND		400	324	81	400	340	85	5	39-127/18
75-15-0	Carbon Disulfide	9.8		400	285	69	400	310	75	8	55-139/20
56-23-5	Carbon Tetrachloride	ND		400	372	93	400	395	99	6	60-131/20
108-90-7	Chlorobenzene	ND		400	399	100	400	412	103	3	71-124/14
75-00-3	Chloroethane	ND		400	344	86	400	380	95	10	44-163/31
67-66-3	Chloroform	9.4		400	401	98	400	418	102	4	65-130/15
124-48-1	Dibromochloromethane	ND		400	356	89	400	371	93	4	57-125/15
96-12-8	1,2-Dibromo-3-chloropropane	ND		400	345	86	400	382	96	10	43-132/22
541-73-1	m-Dichlorobenzene	ND		400	380	95	400	395	99	4	67-124/14
95-50-1	o-Dichlorobenzene	ND		400	383	96	400	407	102	6	67-124/14
106-46-7	p-Dichlorobenzene	ND		400	378	95	400	403	101	6	66-122/15
75-34-3	1,1-Dichloroethane	ND		400	391	98	400	410	103	5	65-132/17
107-06-2	1,2-Dichloroethane	ND		400	402	101	400	411	103	2	61-130/13
75-35-4	1,1-Dichloroethylene	ND		400	352	88	400	378	95	7	62-136/20
156-59-2	cis-1,2-Dichloroethylene	ND		400	382	96	400	404	101	6	68-129/15
156-60-5	trans-1,2-Dichloroethylene	ND		400	348	87	400	369	92	6	65-132/18
540-59-0	1,2-Dichloroethene (total)	ND		800	731	91	800	773	97	6	66-130/15
78-87-5	1,2-Dichloropropane	ND		400	404	101	400	419	105	4	71-123/14
10061-01-5	cis-1,3-Dichloropropene	ND		400	328	82	400	346	87	5	61-125/15
10061-02-6	trans-1,3-Dichloropropene	ND		400	329	82	400	347	87	5	59-128/14
542-75-6	1,3-Dichloropropene (total)	ND		800	657	82	800	692	87	5	61-126/14
100-41-4	Ethylbenzene	222		400	665	111	400	685	116	3	50-147/15
67-72-1	Hexachloroethane	ND		400	332	83	400	326	82	2	42-122/21
78-83-1	Isobutyl Alcohol	ND		4000	3880	97	4000	3820	96	2	6-168/41
74-83-9	Methyl Bromide	ND		400	355	89	400	389	97	9	24-163/28
74-87-3	Methyl Chloride	12.0		400	498	122	400	525	128	5	37-151/22
75-09-2	Methylene Chloride	ND		400	394	99	400	398	100	1	63-137/16
78-93-3	Methyl Ethyl Ketone	226		1000	1120	89	1000	1150	92	3	35-137/21
108-10-1	4-Methyl-2-pentanone	76.3		1000	1190	111	1000	1190	111	0	48-146/21
1634-04-4	Methyl Tert Butyl Ether	5.5		400	384	95	400	409	101	6	48-143/15
100-42-5	Styrene	14.6		400	385	93	400	403	97	5	58-140/18
630-20-6	1,1,1,2-Tetrachloroethane	ND		400	401	100	400	419	105	4	67-127/15
79-34-5	1,1,2,2-Tetrachloroethane	7.1		400	407	100	400	431	106	6	62-139/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA56691-4MS	2I063045.D	20	08/13/19	CP	n/a	n/a	V2I2291
LA56691-4MSD	2I063047.D	20	08/13/19	CP	n/a	n/a	V2I2291
LA56691-4 [a]	2I063043.D	20	08/13/19	CP	n/a	n/a	V2I2291

The QC reported here applies to the following samples: **Method:** SW846 8260B

LA56776-1, LA56776-2, LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-8, LA56776-9

CAS No.	Compound	LA56691-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	ND		400	376	94	400	392	98	4	68-127/19
108-88-3	Toluene	2690		400	3220	133	400	3340	163* [b]	4	40-153/15
71-55-6	1,1,1-Trichloroethane	ND		400	400	100	400	425	106	6	68-132/18
79-00-5	1,1,2-Trichloroethane	15.2		400	405	97	400	407	98	0	62-137/16
79-01-6	Trichloroethylene	ND		400	379	95	400	392	98	3	67-124/16
75-69-4	Trichlorofluoromethane	ND		400	357	89	400	371	93	4	65-134/17
75-01-4	Vinyl Chloride	ND		400	341	85	400	353	88	3	60-133/16
	m,p-Xylene	1120		800	2050	116	800	2120	125	3	47-153/15
95-47-6	o-Xylene	543		400	1060	129	400	1070	132	1	50-149/14
1330-20-7	Xylene (total)	1660		1200	3110	121	1200	3200	128	3	46-154/15

CAS No.	Surrogate Recoveries	MS	MSD	LA56691-4	Limits
17060-07-0	1,2-Dichloroethane-D4	102%	103%	105%	81-120%
2037-26-5	Toluene-D8	100%	100%	100%	93-105%
460-00-4	4-Bromofluorobenzene	101%	101%	99%	89-107%

(a) Sample used for QC purposes only.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-MB	L0028603.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
100-02-7	4-Nitrophenol	ND	25	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
83-32-9	Acenaphthene	ND	0.20	ug/l	
208-96-8	Acenaphthylene	ND	0.20	ug/l	
62-53-3	Aniline	ND	5.0	ug/l	
120-12-7	Anthracene	ND	0.20	ug/l	
56-55-3	Benzo(a)anthracene	0.023	0.20	ug/l	J
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	0.012	0.20	ug/l	J
92-52-4	1,1'-Biphenyl	ND	10	ug/l	
85-68-7	Butyl Benzyl Phthalate	0.035	5.0	ug/l	J
106-47-8	4-Chloroaniline	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
218-01-9	Chrysene	0.012	0.20	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	ug/l	
84-66-2	Diethyl Phthalate	0.13	5.0	ug/l	J
131-11-3	Dimethyl Phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	
206-44-0	Fluoranthene	0.014	0.20	ug/l	J

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-MB	L0028603.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	0.20	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	0.20	ug/l	
129-00-0	Pyrene	0.018	0.20	ug/l	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	69%	25-101%
4165-62-2	Phenol-d5	58%	17-79%
118-79-6	2,4,6-Tribromophenol	83%	40-144%
4165-60-0	Nitrobenzene-d5	95%	40-124%
321-60-8	2-Fluorobiphenyl	67%	27-124%
1718-51-0	Terphenyl-d14	92%	45-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-BS	L0028604.D	1	08/14/19	AA	08/13/19	OP14901	EL757
OP14901-BSD	L0028605.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	5	4.5	90	4.4	88	2	48-123/17
120-83-2	2,4-Dichlorophenol	5	5.0	100	4.7	94	6	52-135/17
105-67-9	2,4-Dimethylphenol	5	5.0	100	4.5	90	11	47-132/21
51-28-5	2,4-Dinitrophenol	25	24.0	96	22.7	91	6	32-139/25
100-02-7	4-Nitrophenol	25	15.6	62	14.6	58	7	15-105/22
87-86-5	Pentachlorophenol	25	23.1	92	21.7	87	6	51-131/19
108-95-2	Phenol	5	2.9	58	2.7	54	7	19-92/23
58-90-2	2,3,4,6-Tetrachlorophenol	5	5.1	102	5.0	100	2	57-136/19
95-95-4	2,4,5-Trichlorophenol	5	5.2	104	4.9	98	6	51-143/17
88-06-2	2,4,6-Trichlorophenol	5	4.9	98	4.6	92	6	59-132/19
83-32-9	Acenaphthene	5	4.2	84	3.8	76	10	50-120/16
208-96-8	Acenaphthylene	5	4.2	84	3.9	78	7	48-126/16
62-53-3	Aniline	5	3.8	76	4.1	82	8	10-112/50
120-12-7	Anthracene	5	4.3	86	3.9	78	10	53-128/16
56-55-3	Benzo(a)anthracene	5	4.9	98	4.6	92	6	54-129/19
50-32-8	Benzo(a)pyrene	5	4.9	98	4.7	94	4	55-135/19
205-99-2	Benzo(b)fluoranthene	5	4.9	98	4.8	96	2	54-139/23
207-08-9	Benzo(k)fluoranthene	5	5.3	106	4.9	98	8	58-132/22
92-52-4	1,1'-Biphenyl	5	4.0	80	3.5	70	13	44-127/17
85-68-7	Butyl Benzyl Phthalate	5	5.8	116	5.6	112	4	63-141/20
106-47-8	4-Chloroaniline	5	4.3	86	4.4	88	2	19-126/38
111-44-4	bis(2-Chloroethyl)ether	5	4.8	96	4.6	92	4	45-123/17
108-60-1	2,2'-Oxybis(1-chloropropane)	5	4.9	98	4.6	92	6	29-126/17
91-58-7	2-Chloronaphthalene	5	3.8	76	3.4	68	11	44-123/20
218-01-9	Chrysene	5	4.8	96	4.7	94	2	57-127/20
53-70-3	Dibenzo(a,h)anthracene	5	5.3	106	4.9	98	8	58-141/21
132-64-9	Dibenzofuran	5	4.3	86	3.9	78	10	48-126/17
91-94-1	3,3'-Dichlorobenzidine	5	5.6	112	5.8	116	4	10-188/40
84-66-2	Diethyl Phthalate	5	4.7	94	4.5	90	4	54-133/17
131-11-3	Dimethyl Phthalate	5	5.0	100	4.8	96	4	56-132/17
117-84-0	Di-n-octyl Phthalate	5	4.9	98	4.7	94	4	66-139/21
99-65-0	1,3-Dinitrobenzene	25	26.6	106	25.8	103	3	64-133/16
121-14-2	2,4-Dinitrotoluene	5	4.9	98	4.7	94	4	67-132/20
606-20-2	2,6-Dinitrotoluene	5	5.3	106	5.1	102	4	56-138/20
117-81-7	bis(2-Ethylhexyl)phthalate	5	5.4	108	5.2	104	4	60-142/20
206-44-0	Fluoranthene	5	4.3	86	4.0	80	7	57-133/18

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-BS	L0028604.D	1	08/14/19	AA	08/13/19	OP14901	EL757
OP14901-BSD	L0028605.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
86-73-7	Fluorene	5	4.4	88	4.0	80	10	52-125/15
118-74-1	Hexachlorobenzene	5	2.6	52	2.2	44* [a]	17	47-127/21
87-68-3	Hexachlorobutadiene	5	2.5	50	2.2	44	13	14-121/30
77-47-4	Hexachlorocyclopentadiene	5	2.1	42	1.7	34	21	10-114/31
193-39-5	Indeno(1,2,3-cd)pyrene	5	5.2	104	5.0	100	4	58-142/19
78-59-1	Isophorone	5	5.1	102	4.7	94	8	52-130/18
91-57-6	2-Methylnaphthalene	5	4.0	80	3.3	66	19* [b]	43-123/18
91-20-3	Naphthalene	5	4.1	82	3.6	72	13	45-120/16
88-74-4	2-Nitroaniline	25	26.2	105	25.0	100	5	63-132/17
99-09-2	3-Nitroaniline	25	26.7	107	26.5	106	1	31-144/23
100-01-6	4-Nitroaniline	25	29.0	116	28.9	116	0	22-154/25
98-95-3	Nitrobenzene	5	5.5	110	5.0	100	10	52-128/17
621-64-7	N-Nitroso-di-n-propylamine	5	4.6	92	4.4	88	4	48-129/20
86-30-6	N-Nitrosodiphenylamine	5	4.7	94	4.5	90	4	26-146/28
85-01-8	Phenanthrene	5	4.3	86	3.9	78	10	54-124/17
129-00-0	Pyrene	5	4.2	84	3.9	78	7	56-132/19
95-94-3	1,2,4,5-Tetrachlorobenzene	5	3.2	64	2.6	52	21	33-121/24
120-82-1	1,2,4-Trichlorobenzene	5	3.4	68	2.7	54	23	34-118/23

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	63%	59%	25-101%
4165-62-2	Phenol-d5	53%	50%	17-79%
118-79-6	2,4,6-Tribromophenol	95%	91%	40-144%
4165-60-0	Nitrobenzene-d5	103%	92%	40-124%
321-60-8	2-Fluorobiphenyl	75%	67%	27-124%
1718-51-0	Terphenyl-d14	92%	89%	45-140%

(a) Recovery of this analyte marginally exceeded lower statistical control limits.
(b) Analytical precision exceeds laboratory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-MS	L0028607.D	1	08/14/19	AA	08/13/19	OP14901	EL757
OP14901-MSD	L0028608.D	1	08/14/19	AA	08/13/19	OP14901	EL757
LA56507-12 [a]	L0028613.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	LA56507-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		4.55	3.9	86	4.55	4.2	92	7	47-126/30
120-83-2	2,4-Dichlorophenol	ND		4.55	4.1	90	4.55	4.4	97	7	49-137/30
105-67-9	2,4-Dimethylphenol	1.1		4.55	5.1	88	4.55	5.4	95	6	49-123/30
51-28-5	2,4-Dinitrophenol	ND		22.7	25.5	112	22.7	27.2	120	6	37-146/31
100-02-7	4-Nitrophenol	ND		22.7	14.0	62	22.7	16.3	72	15	19-97/39
87-86-5	Pentachlorophenol	237	E	22.7	198	-431* [b]	22.7	185	-488* [b]	7	46-146/33
108-95-2	Phenol	1.7		4.55	4.4	59	4.55	3.8	46	15	20-87/37
58-90-2	2,3,4,6-Tetrachlorophenol	39.4	E	4.55	35.0	-79* [b]	4.55	30.6	-176* [b]	13	61-137/28
95-95-4	2,4,5-Trichlorophenol	ND		4.55	4.6	101	4.55	4.8	106	4	61-133/31
88-06-2	2,4,6-Trichlorophenol	ND		4.55	4.3	95	4.55	4.5	99	5	61-133/29
83-32-9	Acenaphthene	8.5		4.55	10.8	42* [c]	4.55	10	24* [c]	8	43-122/27
208-96-8	Acenaphthylene	0.20		4.55	3.5	73	4.55	3.8	79	8	48-121/29
62-53-3	Aniline	ND		4.55	2.7	59	4.55	2.9	64	7	10-110/54
120-12-7	Anthracene	1.2		4.55	4.7	77	4.55	4.7	77	0	46-137/40
56-55-3	Benzo(a)anthracene	0.96		4.55	5.4	97	4.55	5.0	88	8	54-130/30
50-32-8	Benzo(a)pyrene	0.30		4.55	4.4	90	4.55	4.5	93	2	60-129/31
205-99-2	Benzo(b)fluoranthene	1.0		4.55	5.7	103	4.55	5.4	97	5	56-136/34
207-08-9	Benzo(k)fluoranthene	0.32		4.55	4.9	100	4.55	4.4	89	11	53-138/33
92-52-4	1,1'-Biphenyl	0.10		4.55	3.2	67	4.55	3.3	70	3	40-126/29
85-68-7	Butyl Benzyl Phthalate	ND		4.55	5.3	117	4.55	5.2	114	2	63-144/45
106-47-8	4-Chloroaniline	ND		4.55	1.4	31	4.55	1.8	40	25	10-122/53
111-44-4	bis(2-Chloroethyl)ether	ND		4.55	3.8	84	4.55	4.2	92	10	30-135/31
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		4.55	3.7	81	4.55	4.2	92	13	22-130/34
91-58-7	2-Chloronaphthalene	ND		4.55	2.9	64	4.55	3.1	68	7	43-117/25
218-01-9	Chrysene	1.2		4.55	5.7	97	4.55	5.0	81	13	57-126/31
53-70-3	Dibenzo(a,h)anthracene	0.060		4.55	4.7	103	4.55	4.6	101	2	51-142/33
132-64-9	Dibenzofuran	2.0		4.55	5.4	75	4.55	5.1	68	6	34-142/28
91-94-1	3,3'-Dichlorobenzidine	ND		4.55	ND	0* [c]	4.55	ND	0* [c]	nc	10-126/44
84-66-2	Diethyl Phthalate	0.087		4.55	4.0	88	4.55	4.1	90	2	53-130/37
131-11-3	Dimethyl Phthalate	ND		4.55	4.2	92	4.55	4.3	95	2	53-134/32
117-84-0	Di-n-octyl Phthalate	ND		4.55	4.3	95	4.55	4.4	97	2	62-142/42
99-65-0	1,3-Dinitrobenzene	ND		22.7	22.1	97	22.7	23.3	103	5	60-132/29
121-14-2	2,4-Dinitrotoluene	ND		4.55	4.0	88	4.55	4.2	92	5	65-132/36
606-20-2	2,6-Dinitrotoluene	ND		4.55	4.5	99	4.55	4.6	101	2	60-130/31
117-81-7	bis(2-Ethylhexyl)phthalate	ND		4.55	4.9	108	4.55	4.7	103	4	52-152/38
206-44-0	Fluoranthene	9.5		4.55	14.4	110	4.55	12.8	75	12	46-144/45

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14901-MS	L0028607.D	1	08/14/19	AA	08/13/19	OP14901	EL757
OP14901-MSD	L0028608.D	1	08/14/19	AA	08/13/19	OP14901	EL757
LA56507-12 [a]	L0028613.D	1	08/14/19	AA	08/13/19	OP14901	EL757

The QC reported here applies to the following samples: **Method:** SW846 8270D

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	LA56507-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
86-73-7	Fluorene	4.3		4.55	8.3	84	4.55	7.3	62	13	50-122/27
118-74-1	Hexachlorobenzene	ND		4.55	2.6	57	4.55	2.5	55	4	34-132/35
87-68-3	Hexachlorobutadiene	ND		4.55	2.4	53	4.55	2.4	53	0	13-110/43
77-47-4	Hexachlorocyclopentadiene	ND		4.55	1.9	42	4.55	1.9	42	0	10-100/53
193-39-5	Indeno(1,2,3-cd)pyrene	0.21		4.55	4.7	99	4.55	4.7	99	0	54-139/32
78-59-1	Isophorone	0.85		4.55	4.9	89	4.55	5.1	94	4	54-125/30
91-57-6	2-Methylnaphthalene	0.070		4.55	3.0	66	4.55	3.2	70	6	39-121/30
91-20-3	Naphthalene	0.031		4.55	2.9	64	4.55	3.1	68	7	39-122/27
88-74-4	2-Nitroaniline	ND		22.7	22.4	99	22.7	23.4	103	4	59-133/30
99-09-2	3-Nitroaniline	ND		22.7	10.8	48	22.7	11.9	52	10	17-135/33
100-01-6	4-Nitroaniline	ND		22.7	11.7	51	22.7	12.9	57	10	12-133/46
98-95-3	Nitrobenzene	ND		4.55	4.4	97	4.55	4.8	106	9	44-141/28
621-64-7	N-Nitroso-di-n-propylamine	ND		4.55	4.3	95	4.55	4.6	101	7	37-139/30
86-30-6	N-Nitrosodiphenylamine	ND		4.55	3.8	84	4.55	4.1	90	8	38-134/29
85-01-8	Phenanthrene	0.39		4.55	3.8	75	4.55	3.8	75	0	37-135/36
129-00-0	Pyrene	7.3		4.55	11.4	92	4.55	9.7	55	16	44-142/37
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		4.55	2.5	55	4.55	2.6	57	4	30-114/31
120-82-1	1,2,4-Trichlorobenzene	ND		4.55	2.7	59	4.55	2.8	62	4	30-114/31

CAS No.	Surrogate Recoveries	MS	MSD	LA56507-12	Limits
367-12-4	2-Fluorophenol	57%	63%	63%	25-101%
4165-62-2	Phenol-d5	50%	54%	52%	17-79%
118-79-6	2,4,6-Tribromophenol	97%	104%	106%	40-144%
4165-60-0	Nitrobenzene-d5	89%	103%	90%	40-124%
321-60-8	2-Fluorobiphenyl	54%	59%	57%	27-124%
1718-51-0	Terphenyl-d14	81%	85%	95%	45-140%

(a) Sample extracted beyond hold time. Confirmation run.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Outside control limits. The BS/BSD met criteria.

* = Outside of Control Limits.

GC Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC2295-MB2	LC045905.D	1	08/12/19	NN	n/a	n/a	GLC2295

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics C6-C8 (Unadj.)	ND	30	ug/l	
	Aliphatics > C8-C10 (Unadj.)	19.2	50	ug/l	J
	Aromatics > C8-C10 (Unadj.)	16.6	50	ug/l	J

CAS No.	Surrogate Recoveries		Limits
615-59-8	2,5-Dibromotoluene	97% [a]	70-130%
615-59-8	2,5-Dibromotoluene	82% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14908-MB	LM001987.D	1	08/14/19	SV	08/14/19	OP14908	GLM49

The QC reported here applies to the following samples: **Method:** SW846 8011

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.020	ug/l	

CAS No.	Surrogate Recoveries		Limits
348-51-6	1-Chloro-2-fluorobenzene	115%	60-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC2295-BS1	LC045903.D	1	08/12/19	NN	n/a	n/a	GLC2295
GLC2295-BSD1	LC045904.D	1	08/12/19	NN	n/a	n/a	GLC2295

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aliphatics C6-C8 (Unadj.)	150	161	107	167	111	4	70-130/30
	Aliphatics > C8-C10 (Unadj.)	250	285	114	290	116	2	70-130/30
	Aromatics > C8-C10 (Unadj.)	250	256	102	262	105	2	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
615-59-8	2,5-Dibromotoluene	100% [a]	106% [a]	70-130%
615-59-8	2,5-Dibromotoluene	86% [b]	91% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14908-BS	LM001988.D	1	08/14/19	SV	08/14/19	OP14908	GLM49
OP14908-BSD	LM001989.D	1	08/14/19	SV	08/14/19	OP14908	GLM49

The QC reported here applies to the following samples: **Method:** SW846 8011

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	0.251	0.27	107	0.29	115	7	73-140/16

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
348-51-6	1-Chloro-2-fluorobenzene	105%	113%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA56785-2MS	LC046012.D	20	08/13/19	NN	n/a	n/a	GLC2295
LA56785-2MSD	LC046013.D	20	08/13/19	NN	n/a	n/a	GLC2295
LA56785-2	LC045924.D	1	08/12/19	NN	n/a	n/a	GLC2295

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	LA56785-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	Aliphatics C6-C8 (Unadj.)	ND		3000	3260	109	3000	3170	106	3	70-130/50
	Aliphatics > C8-C10 (Unadj.)	74.7		5000	5570	110	5000	5490	108	1	70-130/50
	Aromatics > C8-C10 (Unadj.)	78.5		5000	5110	101	5000	5080	100	1	70-130/50

CAS No.	Surrogate Recoveries	MS	MSD	LA56785-2	Limits
615-59-8	2,5-Dibromotoluene	108% [a]	106% [a]	113% [a]	70-130%
615-59-8	2,5-Dibromotoluene	95% [b]	92% [b]	95% [b]	70-130%

(a) Recovery from Aliphatics fraction.
(b) Recovery from Aromatics fraction.

* = Outside of Control Limits.

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14888-MB	X0010967.D	1	08/13/19	PC	08/12/19	OP14888	GLB1999

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
	Aromatics > C10-C12 (Unadj.)	ND	140	ug/l	
	Aromatics > C12-C16 (Unadj.)	ND	140	ug/l	
	Aromatics > C16-C21 (Unadj.)	ND	140	ug/l	
	Aromatics > C21-C35 (Unadj.)	ND	140	ug/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	72%	40-140%
321-60-8	2-Fluorobiphenyl	76%	40-140%

Method Blank Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14888-MB	Y0011016.D	1	08/14/19	PC	08/12/19	OP14888	GLB2004

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Result	RL	Units	Q
	Aliphatics > C10-C12 (Unadj.)	ND	140	ug/l	
	Aliphatics > C12-C16 (Unadj.)	ND	140	ug/l	
	Aliphatics > C16-C35 (Unadj.)	ND	140	ug/l	

CAS No.	Surrogate Recoveries		Limits
3386-33-2	1-Chlorooctadecane	95%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14888-BS	X0010968.D	1	08/13/19	PC	08/12/19	OP14888	GLB1999
OP14888-BSD	X0010969.D	1	08/13/19	PC	08/12/19	OP14888	GLB1999

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aromatics > C10-C12 (Unadj.)	463	260	56	321	69	21	40-140/30
	Aromatics > C12-C16 (Unadj.)	1390	769	55	958	69	22	40-140/30
	Aromatics > C16-C21 (Unadj.)	2310	1300	56	1580	68	19	40-140/30
	Aromatics > C21-C35 (Unadj.)	3700	2290	62	2760	75	19	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	56%	68%	40-140%
321-60-8	2-Fluorobiphenyl	63%	79%	40-140%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA56776
Account: HETILAL Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14888-BS	Y0011017.D	1	08/14/19	PC	08/12/19	OP14888	GLB2004
OP14888-BSD	Y0011018.D	1	08/14/19	PC	08/12/19	OP14888	GLB2004

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	Aliphatics > C10-C12 (Unadj.)	463	429	93	264	57	48* [a]	40-140/30
	Aliphatics > C12-C16 (Unadj.)	926	855	92	581	63	38* [a]	40-140/30
	Aliphatics > C16-C35 (Unadj.)	4170	4090	98	2950	71	32* [a]	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
3386-33-2	1-Chlorooctadecane	107%	76%	40-140%

(a) High RPD. Both the BS and BSD meet recovery criteria.

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	1.4	9.3	-14	<100
Antimony	1.0	.0063	.34		
Arsenic	1.0	.062	.26	-0.10	<1.0
Barium	1.0	.0089	.46	0.17	<1.0
Beryllium	1.0	.0096	.28		
Boron	20	1.5	2.9		
Cadmium	0.50	.0081	.12	-0.092	<0.50
Calcium	100	4.7	20	-24	<100
Cerium	1.0	.0019	.16		
Chromium	1.0	.059	.15	-0.17	<1.0
Cobalt	1.0	.0082	.14		
Copper	1.0	.27	.74		
Iron	100	2.8	16	-17	<100
Lithium	2.0	.3	.61		
Lead	1.0	.0045	.13	-0.13	<1.0
Magnesium	100	1.1	11	-5.2	<100
Manganese	2.0	.1	.53	-0.21	<2.0
Molybdenum	1.0	.19	.89		
Nickel	1.0	.081	.2		
Potassium	100	5	7.6	2.5	<100
Selenium	5.0	.3	3.1	-0.48	<5.0
Silver	1.0	.0088	.13	-0.11	<1.0
Silicon	500	7.6	130		
Sodium	100	8.6	9.9	49.7	<100
Strontium	2.0	.063	.27	-0.052	<2.0
Thallium	1.0	.03	.86		
Tin	2.0	.059	.19		
Titanium	1.0	.095	.77		
Uranium	1.0	.0019	.17		
Vanadium	1.0	.035	.1		
Zinc	5.0	1.5	1.1	-0.86	<5.0

Associated samples MP16027: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	RL	IDL	MDL	MB raw	final

(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56762-1 Original	MS	Spikelot MPICPMS6	% Rec	QC Limits
Aluminum	20.6	5420	5100	105.1	75-125
Antimony					
Arsenic	1.1	86.4	100	85.3	75-125
Barium	218	335	100	117.0	75-125
Beryllium					
Boron					
Cadmium	0.0	95.1	100	95.1	75-125
Calcium	56100	60800	5000	94.0	75-125
Cerium					
Chromium	6.3	112	100	105.7	75-125
Cobalt					
Copper					
Iron	940	6550	5000	112.2	75-125
Lithium					
Lead	0.0	109	100	109.0	75-125
Magnesium	20800	25900	5000	102.0	75-125
Manganese	179	279	100	100.0	75-125
Molybdenum					
Nickel					
Potassium	1880	7300	5000	108.4	75-125
Selenium	0.0	415	500	83.0	75-125
Silver	0.0	106	100	106.0	75-125
Silicon					
Sodium	35100	40000	5000	98.0	75-125
Strontium	316	419	100	103.0	75-125
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	22.5	104	100	81.5	75-125

Associated samples MP16027: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56762-1 Original MS	Spikelot MPICPMS6 % Rec	QC Limits

(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56762-1 Original	MSD	Spikelot MPICPMS6	% Rec	MSD RPD	QC Limit
Aluminum	20.6	5030	5100	97.5	6.4	20
Antimony						
Arsenic	1.1	92.7	100	91.6	6.9	20
Barium	218	312	100	94.0	2.5	20
Beryllium						
Boron						
Cadmium	0.0	91.4	100	91.4	4.0	20
Calcium	56100	60300	5000	84.0	0.8	20
Cerium						
Chromium	6.3	112	100	105.7	2.7	20
Cobalt						
Copper						
Iron	940	6410	5000	109.4	2.2	20
Lithium						
Lead	0.0	109	100	109.0	0.0	20
Magnesium	20800	25400	5000	92.0	1.9	20
Manganese	179	273	100	94.0	0.7	20
Molybdenum						
Nickel						
Potassium	1880	6800	5000	98.4	4.3	20
Selenium	0.0	420	500	84.0	0.7	20
Silver	0.0	103	100	103.0	2.9	20
Silicon						
Sodium	35100	39300	5000	84.0	5.4	20
Strontium	316	411	100	95.0	4.8	20
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	22.5	103	100	80.5	1.9	20

Associated samples MP16027: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56762-1 Original MSD	Spikelot MPICPMS6 % Rec	MSD RPD	QC Limit

(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	BSP Result	Spikelot MPICPMS6	% Rec	QC Limits
Aluminum	5070	5100	99.4	80-120
Antimony				
Arsenic	103	100	103.0	80-120
Barium	98.7	100	98.7	80-120
Beryllium				
Boron				
Cadmium	102	100	102.0	80-120
Calcium	5120	5000	102.4	80-120
Cerium				
Chromium	100	100	100.0	80-120
Cobalt				
Copper				
Iron	4850	5000	97.0	80-120
Lithium				
Lead	105	100	105.0	80-120
Magnesium	4880	5000	97.6	80-120
Manganese	101	100	101.0	80-120
Molybdenum				
Nickel				
Potassium	4980	5000	99.6	80-120
Selenium	523	500	104.6	80-120
Silver	98.2	100	98.2	80-120
Silicon				
Sodium	4880	5000	97.6	80-120
Strontium	97.9	100	97.9	80-120
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	117	100	117.0	80-120

Associated samples MP16027: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	BSP Result	Spikelot MPICPMS6 % Rec	QC Limits

(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56762-1 Original	SDL 10:50%DIF		QC Limits
Aluminum	20.6	125	110.7(a)	0-10
Antimony				
Arsenic	1.05	0.00	100.0(a)	0-10
Barium	218	215	1.7	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium	56100	54200	3.4	0-10
Cerium				
Chromium	6.28	25.0	298.5(a)	0-10
Cobalt				
Copper				
Iron	940	339	63.9 (a)	0-10
Lithium				
Lead	0.00	0.00	NC	0-10
Magnesium	20800	19700	5.2	0-10
Manganese	179	161	9.9	0-10
Molybdenum				
Nickel				
Potassium	1880	2820	50.5 (a)	0-10
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Silicon				
Sodium	35100	34800	1.1	0-10
Strontium	316	331	4.7	0-10
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	22.5	95.6	325.2(a)	0-10

Associated samples MP16027: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16027 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

	LA56762-1	QC
Metal	Original SDL 10:50%DIF	Limits

(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16033 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.056	.081	-0.010	<0.20

Associated samples MP16033: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16033 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56776-3 Original	MS	Spikelot HGSPIKE1	% Rec	QC Limits
Mercury	0.0	4.4	5	88.0	75-125

Associated samples MP16033: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16033 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56776-3 Original	MSD	Spikelot HGSPIKE1	% Rec	MSD RPD	QC Limit
Mercury	0.0	4.4	5	88.0	0.0	20

Associated samples MP16033: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16033 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	BSP Result	Spikelot HGSPIKE1	% Rec	QC Limits
Mercury	4.7	5	94.0	80-120

Associated samples MP16033: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA56776
Account: HETILAL - Hydro-Environmental Technology, Inc.
Project: 8060.00 Indigo-Desoto Parish, LA

QC Batch ID: MP16033 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/12/19

Metal	LA56776-3 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-

Associated samples MP16033: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7, LA56776-3F, LA56776-4F, LA56776-5F, LA56776-6F, LA56776-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Misc. Forms

Custody Documents and Other Forms

(SGS Houston, TX)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

Cooler 4

Page 1 of 1

TX

SGS

500 Ambassador Caffery Parkway, Scott, LA 70583
Phone: 800-304-5227 Fax: 337-237-7838

FED-EX Tracking #:

Bottle Order Control #:

SGS Quote #:

SGS Job #: LA56776

Client / Reporting Information

Company Name: SGS North America Inc.

Street Address: 500 Ambassador Caffery Parkway

City: Scott State: LA Zip: 70583

Project Contact: ralph.frye@sgs.com E-mail:

Phone #: 800-304-5227 Fax #:

Sampler(s) Name(s): KC/LV Phone:

Project Information

Project Name: 8060.00 Indigo-Desoto Parish, LA

Street:

City: State:

Project #:

Client Purchase Order #:

Project Manager:

Billing Information (if different from Report to)

Company Name:

Street Address:

City: State: Zip:

Attention:

Requested Analysis (see TEST CODE sheet)

,BROIC9056 ,CHLIC9056 ,SCON ,SIL ,SO4IC9056 ,TDS ,XCARBICALK

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE		LAB USE ONLY
3	031-829 (DAVID MASON RELIEF WEL		8/7/19	10:30:00 AM	KC/LV	AQ										X	
4	031-836 (BESSIE MCMICHAEL RELIE		8/7/19	11:45:00 AM	KC/LV	AQ										X	
5	SN 152126 (ARDIS MARTIN RELIEF W		8/7/19	12:30:00 PM	KC/LV	AQ										X	
6	031-9825Z (BILLINGSLEY RELIEF WE		8/7/19	4:05:00 PM	KC/LV	AQ										X	
7	031-802 (DERBONNE RELIEF WELL)		8/7/19	9:00:00 AM	KC/LV	AQ										X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 8/19/2019

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

X COMMB

Commercial "A" = Results Only

Commercial "B" = Results + QC Summary

Comments / Special Instructions

5-500ml wp

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/9/19			8/9/19	
2	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		8-9-19			8-9-19	8/9/19 2335
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not Intact	Preserved where applicable
5						On Ice: Cooler Temp. 1.5

9.1

9

SGS Sample Receipt Summary

Job Number: LA56776 **Client:** SGS **Project:** 8060

Date / Time Received: 8/9/2019 11:35:00 PM **Delv Method:** **Airbill #'s:**

# of Coolers: 1 **Therm ID:** IR-9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (1.5/1.5);

Test Strip Lot #s: **pH 1-12:** **pH 12+:** **Other: (Specify)**

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Type Of TB Received	W	or	S	N/A
	☐		☐	☐

Misc. Information

Number of terracores: Number of Lab Filtered Metals:

Number of 5035 Field Kits:

Residual Chlorine Test Strip Lot #:

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples preserved properly:	☑		☐	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Condition of sample:	Intact			
5. Sample recvd within HT:	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. Container labeling complete:	☑		☐	
8. Analysis requested is clear:	☑		☐	
9. VOCs headspace free:	☐		☐	☑
10. Bottles received for unspecified tests	☐		☑	
11. COC Present:	☑		☐	
12. Special Instructions (compositing/filtering) clear:	☐		☐	☑
13. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
14. % Solids Jar received?	☐		☐	☐
15. Residual Chlorine Present?	☐		☐	☐

Comments

Sample Receipt Log

Job #: LA56776 **Date / Time Received:** 8/9/2019 11:35:00 PM **Initials:** BELINDG

Client: SGS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	LA56776-3	500ml	1	M1C	N/P	Note #2 - Preservative check not applicable.	IR-9	1.5	0	1.5
1	LA56776-4	500ml	1	M1C	N/P	Note #2 - Preservative check not applicable.	IR-9	1.5	0	1.5
1	LA56776-5	500ml	1	M1C	N/P	Note #2 - Preservative check not applicable.	IR-9	1.5	0	1.5
1	LA56776-6	500ml	1	M1C	N/P	Note #2 - Preservative check not applicable.	IR-9	1.5	0	1.5
1	LA56776-7	500ml	1	M1C	N/P	Note #2 - Preservative check not applicable.	IR-9	1.5	0	1.5

General Chemistry

QC Data Summaries

(SGS Houston, TX)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA56776
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate	GN442	5.0	2.0	mg/l				
Alkalinity, Carbonate	GN443	5.0	0.0	mg/l				
Alkalinity, Total as CaCO3	GN441	5.0	2.0	mg/l	100	103	103.0	90-110%
Alkalinity, Total as CaCO3	GN441			mg/l	100	103	103.0	90-110%
Bromide	GP54343/GN472	0.60	0.0	mg/l	10	10.9	109.0	90-110%
Chloride	GP54343/GN472	0.70	0.0	mg/l	10	9.84	98.4	90-110%
Silica, Dissolved	GN454	0.070	0.0	mg/l	1.07	0.99	92.5	80-120%
Solids, Total Dissolved	GN385	10	0.0	mg/l	500	475	95.0	88-110%
Specific Conductivity	GN398	1.0	<1.0	umhos/cm				
Sulfate	GP54343/GN472	0.50	0.0	mg/l	10	10.3	103.0	90-110%

Associated Samples:
Batch GN385: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN398: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN441: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN442: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN443: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN454: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GP54343: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA56776
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP54343/GN472	LA56751-4	mg/l	2.0	0.0	200.0*	0-19%
Chloride	GP54343/GN472	LA56751-4	mg/l	324	302	7.0	0-13%
Silica, Dissolved	GN454	LA56751-3	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN385	TD43283-15	mg/l	769	771	0.3	0-5%
Specific Conductivity	GN398	LA56762-1	umhos/cm	591	591	0.0	0-10%
Sulfate	GP54343/GN472	LA56751-4	mg/l	355	351	1.1	0-20%

Associated Samples:
Batch GN385: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN398: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GN454: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GP54343: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA56776
Account: ALLA - SGS Scott, LA
Project: HETILAL: 8060.00 Indigo-Desoto Parish, LA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP54343/GN472	LA56751-4	mg/l	2.0	500	628	125.2N	80-120%
Chloride	GP54343/GN472	LA56751-4	mg/l	324	500	858	107.0	80-120%
Silica, Dissolved	GN454	LA56751-3	mg/l	0.0	1.07	1.0	93.5	75-125%
Sulfate	GP54343/GN472	LA56751-4	mg/l	355	500	864	102.0	80-120%

Associated Samples:
Batch GN454: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
Batch GP54343: LA56776-3, LA56776-4, LA56776-5, LA56776-6, LA56776-7
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits