From:	Sweazy, Colleen
To:	Hummel, Lindsey
Cc:	WEAVER, TROY; Schwartz, Owen R; Roeder, Chris; Luke, William C; Flanigan, Daniel W; Holstein, David C; Whittaker, Robert D
Subject:	Gibson South Landfill FP 26-06 Background Sampling Event May 2024
Date:	Wednesday, July 3, 2024 2:54:00 PM
Attachments:	image001.png FP 26-06 Background Event 3 Report 5-2024.pdf SALF FP 26-06 May 2024 EDD 50373903 MW-109S MW-111S.txt SALF FP 26-06 May 2024 EDD 50374080 MW-112S.txt

Good afternoon Lindsey,

Please see the attached Third Background Water Quality Sampling Report for the Gibson South Landfill (FP 26-06) monitoring wells MW-109S, MW-111S, and MW-112S. The electronic data files (EDFs) are attached and will also be submitted to geologydata@idem.in.gov. The Level IV QA/QC package is not yet available from Pace Labs, and will posted to the IDEM Sharepoint when finalized.

Regards,

Colleen Sweazy
Senior Environmental Specialist
Waste and Groundwater Programs
(O) 812-386-4805 (M) 812-457-6282
800 Old Wheatland Road
Vincennes, IN 47591
Colleen.sweazy@duke-energy.com

Duke Energy
WP994 / 1000 East Main Street
Plainfield, IN 46168

July 3, 2024

Ms. Lindsey Hummel
Environmental Manager
Solid Waste Permits Section
Office of Land Quality IDEM
100 North Senate Ave. IGCN 1154
Indianapolis, IN 46204

Subject: Gibson South Landfill RWS Type I Landfill FP #26-06
MW-109S, MW-111S, MW-112S
Third Background Water Quality Monitoring Report

Dear Ms. Hummel:

In accordance with 329 IAC 10-29-4(a)(4), Duke Energy Indiana, LLC (DEI) respectfully submits to the Indiana Department of Environmental Management (IDEM) the attached first quarterly background monitoring event report for MW-109S, MW-111S, and MW-112S at the RWS Type I Landfill (FP #26-06). The submittal includes an analytical report completed by Pace Analytical Services, Inc., sampling trip report and field data sheets from Apex Companies, LLC.

Proper QA/QC procedures for this sampling event were adhered to as detailed in the Revised Sampling and Analysis Plan (SAP) for the Gibson Generating Station South Landfill FP #26-06 dated August 25, 2023 and approved by IDEM on September 14, 2023.

A well installation report for monitoring wells MW-109S, MW-111S, and MW-112S was submitted to IDEM on August 25, 2023 and approved by IDEM on October 12, 2023. The third quarterly sampling event was completed on May 21 and May 23, 2024.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that I am authorized to submit this information. If you have any questions or require additional information regarding this submittal, please contact me at colleen.sweazy@duke-energy.com.

Sincerely,
Duke Energy Indiana, LLC

Colleen Sweazy
EHS CCP Waste & Groundwater Programs

Attachment

CC: Electronic Full Version

Owen Schwartz
Chris Roeder
Dan Flanigan
Dave Holstein
Robert Whittaker
William Luke
Cast Pro

June 17, 2024

Ms. Colleen Sweazy
Senior Environmental Specialist
Duke Energy
1000 East Main Street, WP994
Plainfield, IN 46168-1782

Re: May 2024
Gibson Station – South Landfill Background Sampling Event
Owensville, Indiana

Dear Ms. Sweazy:

Apex Companies, LLC completed the South Landfill background monitoring event at the Duke Energy Gibson Station located in Owensville, Indiana during the week of May 20, 2024. The following information regarding the background monitoring activities for the South Landfill is enclosed:

- Trip report memorandum;
- Copy of the field logbook notes (Attachment A);
- Field data sheet (Attachment B);
- Summary of water level measurements (Attachment C); and
- Chain-of-custody records (Attachment D).

If you require additional information or have any questions, please contact me at (412) 400-6985. We appreciate the opportunity to continue providing environmental services to Duke Energy.

Sincerely,
Apex Companies, LLC

Tom Wolf
Senior Project Manager

Enclosure

Apex Companies, LLC

Memo

To: Tom Wolf

From: G. O'Toole

Date: June 13, 2024

Re: May 2024 South Landfill Background Sampling Event
Duke Energy Gibson Station, Owensville, IN

SCOPE OF WORK

The scope of work involved the collection of three (3) groundwater monitoring well samples associated with the South Landfill Background monitoring event at the Duke Energy Gibson Station Site in Owensville, IN. Depth to water level measurements were also obtained at the 3 planned monitoring well locations. Purging prior to sampling was conducted using low flow techniques, with pH, conductivity, ORP, dissolved oxygen and temperature or turbidity as the stabilization parameters.

WORK COMPLETION

One round of groundwater levels was completed on Monday, May 20, 2024. Apex personnel conducted the monitoring well sampling activities on Tuesday, May 21, 2024 and Thursday, May 23, 2024. All monitoring well samples were collected using submersible pumps and low flow techniques. Wells MW-109S and MW-111S were sampled using dedicated submersible pumps. The dedicated pump in well MW-112S malfunctioned and it was sampled with a portable submersible pump.

The following wells were sampled on the following dates:

- Tuesday, May 21, 2024 – MW-109S; MW-111S (2 wells); and
- Thursday, May 23, 2023 – MW-112S (1 well).

Samples were placed in coolers and kept on ice following collection. The samples collected on Tuesday, May 21, 2024 were held until the following day and transported with the samples from that date by Jett Express to Pace Analytical Services in Indianapolis, IN on Wednesday, May 22, 2024. The samples collected on Thursday, May 23, 2024 were delivered to the lab by Jett Express on the day of collection.

QA/QC SAMPLES

QA/QC sample collection at the site was completed as planned. QA/QC samples included one field duplicate collected at well MW-109S, one field blank collected near MW-111S and one trip blank. One equipment blank was also collected from a non-dedicated water level meter utilized during this event and analyzed for the South Landfill Background list of constituents.

WORK DOCUMENTATION

A complete package of project documentation is attached to this memo. Included are the following:

- Notes from the field books (Attachment A);
- Field Data Sheet for South Landfill wells (Attachment B);
- Summary of Water Level Measurements (Attachment C); and
- Chain-of-Custody Records (Attachment D).

ADDITIONAL NOTES

All waste material from sampling activities was bagged and disposed of by Apex at the Gibson Station site.

Samples for dissolved metals analyses from each well were field filtered.

Well Condition Notes:

- MW-112S: Dedicated pump malfunctioned this event. Well sampled with a portable submersible pump.

Attachment A

Field Book Notes

5-20-24 Gibson

Water Levels

MW-47A	12.77	14:40 R	MW-49C	16.87	15:54 R
MW-47B	12.74	14:44 R	MW-101S	41.32	13:40
MW-47C	12.84	14:47 R	MW-102S	23.57	13:36
MW-48A	14.35	14:55 R	MW-103S	37.88	12:55
MW-48B	14.36	14:57 R	MW-103S	28.35	13:30
MW-48C	14.26	15:00 R	MW-104S	27.22	13:25 R
MW-53A	10.58	16:17 G	MW-105S	29.14	13:20 R
MW-53B	10.45	16:19 G	MW-105I	23.98	13:18 R
MW-53C	10.84	16:21 G	MW-105D	23.91	13:16 R
MW-54A	20.09	14:32 G	MW-106S	29.56	13:14 R
MW-54B	20.45	14:34 G	MW-106I	29.55	13:11 R
MW-54C	20.39	14:36 G	MW-106D	29.64	13:09 R
MW-52A	9.54	15:02 G	MW-107S	36.05	13:07 R
MW-52B	9.46	15:05 R	MW-107D	35.95	13:04 R
MW-52C	9.62	15:07 R	MW-109S	25.05	12:37 G
MW-44B	8.45	15:26 R	MW-111S	23.60	12:27 R
MW-44C	8.73	15:22 R	MW-112S	22.99	12:46 R
MW-45A	16.92	15:39 R	MW-113S	37.22	12:59 R
MW-45B	17.25	15:36 R	MW-95S	12.11	11:21 R
MW-45C	17.17	15:32 R	MW-96S	9.14	11:55 R
MW-46B	17.45	15:44 R	P2-28R	10.96	11:48 R
MW-46C	17.48	15:47 R	P2-31SR	11.47	11:38 R
MW-49A	15.20	16:00 R	P2-98S	11.65	12:18 R
MW-49B	16.87	15:57 R	P2-95I	12.80	11:17 R

MW-49A water entered well

5-20-24

P2-95D	12.23	11:15 R	MW-51A	22.53	14:28 R
P2-71SR	12.48	11:11	MW-51B	22.56	14:25 R
P2-71DR	12.59	11:08	MW-51C	22.61	14:20 R

Meter Calibration

4.0	4.01	4.00	4.01	4.01	
Cond	4.50	4.50	4.50	4.50	
Turb	0.0	0.6	0.2	0.0	
Date	5-20-24	5-20-24	5-21-24	5-21-24	
Time	9:30	19:05	0600	19:30	
DO	9.95	9.46	9.80	8.70	
4.0	4.0	4.0	4.0	4.0	
Cond	4.50	4.50	4.50	4.56	
Turb	0.0	0.7	0.0	0.0	
Date	5-22-24	5-22-24	5-23-24	5-23-24	
Time	6:05	18:30	0605	16:15	
DO	8.46	8.93	9.17	9.71	

5-22-24

Well MW-109S IDW 25.10

Purge Begin 18:32 End

Readings	Gallons	ph	Cond ms/cm	Temp	DO
0	0.30	7.53	0.566	15.0	6.42
1	0.60	7.48	0.578	14.4	4.53
2	0.90	7.05	0.579	14.3	4.33
3	1.20	7.05	0.579	14.3	4.34
4	1.50	7.05	0.579	14.3	4.35

Sampled 18:45

Collected FD SLF New Wells

ORP	Turb	Color	DTW	Time
133	39.3	Clear	25.50	18:32
133	0.0	Clear	25.50	18:35
160	0.0	Clear	25.50	18:38
161	0.0	Clear	25.50	18:41
161	0.0	Clear	25.50	18:44

5-21-24

Well	MW ~~109.50~~ 111S	IDW	23.54		
Purge Begin	17:26	End	17:41		
		mS/cm			
Readings	Gallons	ph	Cond	Temp	DO
0	0.30	7.63	0.534	16.9	0.35
1	0.60	7.50	0.534	17.2	0.00
2	0.90	7.33	0.533	17.4	0.00
3	1.20	7.33	0.534	17.4	0.00
4	1.50	7.30	0.535	17.4	0.00
5	1.80	7.27	0.535	17.4	0.00

Sampled 17:45

*Collected FB SLF Shared 17:10

ORP	Turb	Color	Dtow	Time
109	761	Cloudy	24.23	17:26
103	282	Clear	24.12	17:29
82	42.0	Clear	24.12	17:32
75	21.0	Clear	24.12	17:35
71	12.8	Clear	24.12	17:38
69	4.9	Clear	24.12	17:41

Well	MW-1125	S-23.24	IDW	~~23.17~~ 23.41	
Purge Begin	~~12:02~~	End	9:45		
			mS/cm		
Readings	Gallons	ph	Cond	Temp	Do
0	0.30	7.32	0.464	14.9	0.00
1	0.60	7.28	0.465	14.6	0.00
2	0.90	7.28	0.464	14.7	0.00
3	1.20	7.25	0.464	14.6	0.00
4	1.50	7.25	0.464	14.7	0.00
5	1.80	7.27	0.464	14.6	0.00
6	2.10	7.27	0.464	14.6	0.00

Sampled 9:50

Collected FD on SLF New Wells

H2O level 23.29 after pulling pump. Purged $ Gallons before starting readings

ORP	Turb	Color	DtoW	Time
102	600	Brown	23.50	9:15
55	197	Cloudy	23.50	9:20
39	97.4	Clear	23.50	9:25
37	34.7	Clear	23.50	9:30
36	29.7	Clear	23.50	9:35
37	26.8	Clear	23.50	9:40
39	28.6	Clear	23.50	9:45

Attachment B

Field Data Sheet

FIELD DATA SHEET

Facility: Gibson Station - South Landfill Background	**Event (month/year):** May-24	**Location: Owensville, Indiana**

Operator Names/Signatures:	Gordon O'Toole	Gordon O'Toole	GO
	Print	Signature	Initials
	Print	Signature	Initials
	Print	Signature	Initials
	Print	Signature	Initials
	Print	Signature	Initials
	Print	Signature	Initials

Comments:

Water levels collected on 5/20/2024.

Equipment blank collected on non-dedicated water level meter May 23, 2043.

Quality Assurance Sample Summary:	
Trip Blank Shipped?:	-
Date, Time, and Location of Field Blank Preparation:	5/21/2024 17:45 MW-111S
Selected Well for Duplicate Sample:	MW-109S
Selected Well used for MS/MSD bottles:	-

Checked By: TW
Date Checked:06/14/2024

FIELD DATA SHEET

Facility: Gibson Station - South Landfill Background	Event (month/year): May-24				Location: Owensville, Indiana
Well ID:	MW-109S	MW-111S	MW-112S		
Water Level Measurements and Well Information:					
Date and Time of Measurement	12:37	12:27	12:46		
Elevation of Top of PVC Casing, MSL (TOC)	408.21	407.34	408.30		
Depth to Water, ft (DTW) (measure to nearest 0.01 ft)	25.05	23.50	22.99		
Static Water Level, MSL (SWL = TOC - DTW)	383.16	383.84	385.31		
Total Well Depth, ft (TD)	30.68	29.34	34.80		
Well Diameter, inches (WD)	2	2	2		
Upgradient or Downgradient	Downgradient	Not Applicable	Not Applicable		
Purging Information:					
Water Volume (WV) in Well Casing (gallons) = (TD-DTW) x 0.163					
Date and Time of Purge Start	18:32	17:26	9:15		
Date and Time of Purge End	18:44	17:41	9:45		
Elapsed Purge Time (minutes)	12	15	30		
Actual Volume Purged (gallons)	1.5	1.80	2.1		
Purge Rate (gallons per minute)	0.13	0.12	0.07		
Sample and Field Analysis Information:					
Date and Time of Sample	5/21/24 18:45	5/21/24 17:45	5/23/24 09:50		
Sample Device	Geotech	Grundfos Rediflo 2	Grundfos Rediflo 2		
Sample Material / Tubing Material	Teflon	Teflon	Teflon		
Sample Rate (gallons per minute or liters per minute)	0.13	0.12	0.07		
Filter Device (for dissolved metals)	0.45µm	0.45µm	0.45µm		
Final Dissolved Oxygen mg/L	4.35	0.00	0.00		
Final ORP, mv	161	69	39		
Final pH, standard units	7.05	7.27	7.27		
Final Specific conductance, umhos/cm	579	535	464		
Final Temperature, ^{o}C	14.3	17.4	14.6		
Sample Appearance (color / odor / turbidity (NTU))	Clear	Clear	Clear		
Weather Conditions During Sample	Clear,80's	Clear, 80's	Clear, 80's		
Comments:					
The dedicated pump in MW-112S malfunctioned and it was sampled with a portable pump.					
Operators Initials (also sign and initial cover sheet):	GO	GO	GO		

Checked By: TW
Date Checked:06/14/2024

FIELD DATA SHEET

Facility: Gibson Station - South Landfill Background	**Event (month/day/year):** May-24				**Location: Owensville, Indiana**
Field Meter Information	Meter #2				
Manufacturer, Model Number, and Serial Number:	U64227X				
Calibrated by:	FEI				
Analyzed by:	GO				
Initial Meter Calibration	Standard Used	Manufacturer	Lot No.	Expiration Date	Meter Reading
pH Standard #2: (5/20-5/23)	4.00	FEI	830965	1/17/2026	4.01/4.01/4.00/4.00
Specific Conductance Standard #2: (5/20-5/23)	4.45	FEI	830965	1/17/2026	4.50/4.50/4.50/4.50
Final Meter Calibration/Check					
pH Standard #2: (5/20-5/23)	4.00	FEI	830965	1/17/2026	4.00/4.01/4.00/4.00
Specific Conductance Standard #2: (5/20-5/23)	4.45	FEI	830965	1/17/2026	4.40/4.50/4.50/4.50

Checked By: TW
Date Checked:06/14/2024

Attachment C

Summary of Water Level Measurements

TABLE 1
SUMMARY OF DEPTH TO WATER MEASUREMENTS - May 20, 2024
SOUTH LANDFILL BACKGROUND WELLS

DUKE ENERGY GIBSON STATION
OWENSVILLE, INDIANA

Well Number	Depth to Water (feet)	Time of Measurement	Top of Casing Elevation (feet MSL)	Total Depth (feet)	Groundwater Elevation (feet MSL)
MW-109S	25.05	12:37	408.21	30.68	383.16
MW-111S	23.50	12:27	407.34	29.34	383.84
MW-112S	22.99	12:46	408.30	34.80	385.31

Notes:

1. Top of casing elevations and total depths taken from Atlas Monitoring Well Installation Report dated August 24, 2023.
2. Water level meters were calibrated at MW-35A. No changes were needed.

Attachment D

Chain-of-Custody Records

Pace

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All r

WO# : 50373903

50373903

Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Duke Energy-Gibson Generating Station	Report To: Colleen Sweazy	Attention: Accounts Payable
Address: GIBSON GENERATING STATION	Copy To:	Company Name: Duke Energy
Owensville, IN 47665		Address:
Email: colleen.sweazy@duke-energy.com	Purchase Order #:	Pace Quote:
Phone: 317-838-2161 Fax:	Project Name: Gibson SLF New Wells	Pace Project Manager: kenneth.hunt@pacelabs.com,
Requested Due Date: Standard	Project #:	Pace Profile #: 5992 Line 7

Regulatory Agency:

State / Location: IN

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N): Diss Metals FF — Y

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, Nitrate-353.2	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace® PA	Ra 228 Sub Pace® PA	Residual Chlorine (Y/N)	
1	MW-109S	WT		5/21	1845				12	6	2	4							X	X	X	X	X	X	X	X	X	X		001
2	MW-111S	WT		~~12/4~~ ~~5/21~~		5/21	1945		12	6	2	4							X	X	X	X	X	X	X	X	X	X		002
3	MW-112S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X		
4	GBS_SHARE-FD-2024_0521	WT		5/21	—				12	6	2	4							X	X	X	X	X	X	X	X	X	X		003
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals 6010:(Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S Blacksmith Apex	5/22	1700	[signature]						
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470	[signature]	5/22	2045	[signature]	5/22	2045	5.2 / 5.0	Y	Y	Y
Nitrate 353.2 Short Hold (48 hours)										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Sean Blacksmith

SIGNATURE of SAMPLER: [signature] DATE Signed: 5-22-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

CHAIN-OF-CUSTODY / Analytical Re[quest Document]

The Chain-of-Custody is a LEGAL DOCUMENT. All relevan[t fields must be completed accurately.]

WO# : 50373913

50373913

1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Duke Energy-Gibson Generating Station	Report To:	Colleen Sweazy	Attention:	Accounts Payable
Address:	GIBSON GENERATING STATION	Copy To:		Company Name:	Duke Energy
Owensville, IN 47665				Address:	
Email:	colleen.sweazy@duke-energy.com	Purchase Order #:		Pace Quote:	
Phone:	317-838-2161 Fax:	Project Name:	Gibson SLF NW Shared QC	Pace Project Manager:	kenneth.hunt@pacelabs.com,
Requested Due Date:	Standard	Project #:		Pace Profile #:	5992 Line 6

State / Location: IN

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N): Y (Diss Metals FF)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, **Nitrate-353.2**	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace® PA	Ra 228 Sub Pace® PA	Residual Chlorine (Y/N)	
1	~~GBS_SHARE-FB-2024 0521 - 1710~~	~~WT~~		~~5/21~~	~~1710~~				~~11~~	~~6~~	~~2~~	~~3~~							~~X~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~001~~
2	GBS_SHARE-FB-2024 0521 - 1710	WT		5/21	1710				11	6	2	3							X	X	X		X	X	X	X	X	X		-001
3	GBS_SHARE-TB-2024 0522	WT		5/22	—				11	6	2	3							X	X	X		X	X	X	X	X	X		002
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals 6010:(Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S. Blacksmith Apex	5/22	1700	[signature]						
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470	[signature]	5/22	2045	[signature]	5/22	2045	5.4 / 4.5	Y	Y	Y
Nitrate 353.2 Short Hold (48 hours)										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Sean Blacksmith		
SIGNATURE of SAMPLER:	[signature]	DATE Signed:	5-22-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO# : 50374080

50374080

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Duke Energy-Gibson Generating Station	Report To:	Colleen Sweazy	Attention:	Accounts Payable
Address:	GIBSON GENERATING STATION	Copy To:		Company Name:	Duke Energy
Owensville, IN 47665				Address:	
Email:	colleen.sweazy@duke-energy.com	Purchase Order #:		Pace Quote:	
Phone:	317-838-2161 Fax:	Project Name:	~~Gibson SLF New Wells~~	Pace Project Manager:	~~kenneth.hunt@pacelabs.com,~~
Requested Due Date:	Standard	Project #:		Pace Profile #:	5992 Line 7

Page: 1

State: IN

MATRIX / CODE: ~~Drinking Water DW~~; Water WT; Waste Water WW; Product P; ~~Soil/Solid SL~~; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N): Y (Diss Metals FF *)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, Nitrate-353.2	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace® PA	Ra 228 Sub Pace® PA		Residual Chlorine (Y/N)	
1	MW-109S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X			
2	MW-111S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X			
3	MW-112S	WT		5/23	450				12	6	2	4							X	X	X	X	X	X	X	X	X	X			
4	GBS_SHARE-FD-2024________	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X			
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals 6010:(Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S Blacksmith	5/23	1700	[signature]						
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470	[signature]	5/23	2054	[signature]	5/23	2054	5.8	Y	Y	Y
Nitrate 353.2 Short Hold (48 hours)							Seal			

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Sean Blacksmith		
SIGNATURE of SAMPLER:	[signature]	DATE Signed:	5-23-24

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relev

WO# : 50374073

50374073

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Duke Energy-Gibson Generating Station	Report To: Colleen Sweazy	Attention: Accounts Payable
Address: GIBSON GENERATING STATION	Copy To:	Company Name: Duke Energy
Owensville, IN 47665		Address:
Email: colleen.sweazy@duke-energy.com	Purchase Order #:	Pace Quote:
Phone: 317-838-2161 Fax:	Project Name: Gibson SLF NW Shared QC	Pace Project Manager: kenneth.hunt@pacelabs.com;
Requested Due Date: Standard	Project #:	Pace Profile #: 5992 Line 6

State / Location: IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Other OT Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, Nitrate-353.2	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace PA	Ra 228 Sub Pace PA	Residual Chlorine (Y/N)
																			Requested Analysis Filtered (Y/N)				Y								
1	GBS_SHARE-EB-2024 0523-950	WT			5/23	950				11	6	2	3							X	X	X		X	X	X	X	X	X	
2	GBS_SHARE-FB-2024_____-_____	WT								11	6	2	3							X	X	X		X	X	X	X	X	X	
3	GBS_SHARE-TB-2024_____	WT								11	6	2	3							X	X	X		X	X	X	X	X	X	
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals 6010 (Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S. Blacksmith	5/23	1700							
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470		5/23	2056		5/23	2056	SH	Y	Y	Y
Nitrate 353.2 Short Hold (48 hours)							SH			

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Sean Blacksmith					
SIGNATURE of SAMPLER:		DATE Signed: 9-23-24				

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 24, 2024

Ms. Colleen Sweazy
Duke Energy
1097 N 950 W
Owensville, IN 47665

RE: Project: Gibson SLF New Wells
Pace Project No.: 50373903

Dear Ms. Sweazy:

Enclosed are the analytical results for sample(s) received by the laboratory on May 22, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

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

Sincerely,

Kenneth Hunt
kenneth.hunt@pacelabs.com
(317)228-3120
Project Manager

Enclosures

cc: Ms. Samanta Lax, ATC Group Services
Mr. Bryan Moeller, Duke Energy
Mr. Shane Neumann, Duke Energy Gibson
Mr. John Noel, ATC Group Services
Colton Palmer, Atlas Technical Consultants
Mr. Joshua Stowe, Duke Energy

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373903001	**MW-109S**	Water	05/21/24 18:45	05/22/24 20:45
50373903002	**MW-111S**	Water	05/21/24 17:45	05/22/24 20:45
50373903003	**GBS_SHARE-FD-20240521**	Water	05/21/24 08:00	05/22/24 20:45

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373903001	**MW-109S**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	14	PASI-I
		EPA 6010	ELK	14	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 8260	TMW	43	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2510B	QAK	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 410.4	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 350.1	MTW	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 420.4	OAS	1	PASI-I
50373903002	**MW-111S**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	14	PASI-I
		EPA 6010	ELK	14	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 8260	TMW	43	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2510B	QAK	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 410.4	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 350.1	MTW	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 420.4	OAS	1	PASI-I
50373903003	**GBS_SHARE-FD-20240521**	EPA 9056	ADM	3	PASI-I

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JPK	14	PASI-I
		EPA 6010	ELK	14	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 8260	TMW	43	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2510B	QAK	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 410.4	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 350.1	MTW	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 420.4	OAS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 9056**
Description: 9056 IC Anions
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 793481

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50374037021

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3630681)
  - Calcium
- MSD (Lab ID: 3630682)
  - Calcium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 7470**
Description: 7470 Mercury
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 7470**
Description: 7470 Mercury, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 8260**
Description: 8260/5030 MSV unpreserved
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 8260 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 792047

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 3624788)
  - Iodomethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 792047

1d: Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.

- BLANK (Lab ID: 3624787)
  - Dibromofluoromethane (S)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **SM 2510B**
Description: 2510B Specific Conductance
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for SM 2510B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
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PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 410.4**
Description: 410.4 COD
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 410.4 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 792796

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50373903001,50373948001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3627850)
  - Chemical Oxygen Demand
- MSD (Lab ID: 3627849)
  - Chemical Oxygen Demand

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- GBS_SHARE-FD-20240521 (Lab ID: 50373903003)
- MW-109S (Lab ID: 50373903001)
- MW-111S (Lab ID: 50373903002)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 350.1 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
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PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 353.2 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- GBS_SHARE-FD-20240521 (Lab ID: 50373903003)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Method: **EPA 420.4**
Description: 420.4 Phenolics, Total
Client: Duke Energy Gibson Generating Station
Date: June 24, 2024

General Information:
3 samples were analyzed for EPA 420.4 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 420.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-109S **Lab ID: 50373903001** Collected: 05/21/24 18:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
	Pace Analytical Services - Indianapolis							
Chloride	**15.0**	mg/L	0.25	1		06/05/24 02:26	16887-00-6	
Fluoride	ND	mg/L	0.10	1		06/05/24 02:26	16984-48-8	
Sulfate	**36.7**	mg/L	0.25	1		06/05/24 02:26	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium	**0.012**	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7440-39-3	
Boron	ND	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:42	7440-42-8	
Cadmium	ND	mg/L	0.0010	1	06/04/24 16:04	06/06/24 00:42	7440-43-9	
Calcium	**74.4**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:42	7440-70-2	
Chromium	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7440-47-3	
Copper	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7440-50-8	
Iron	ND	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:42	7439-89-6	
Lead	ND	mg/L	0.0050	1	06/04/24 16:04	06/06/24 00:42	7439-92-1	
Lithium	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:42	7439-93-2	
Manganese	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7439-96-5	
Molybdenum	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7439-98-7	
Silver	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:42	7440-22-4	
Sodium	**6.8**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:42	7440-23-5	
Zinc	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:42	7440-66-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.012**	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7440-39-3	
Boron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:29	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0010	1	06/04/24 21:45	06/06/24 15:29	7440-43-9	
Calcium, Dissolved	**72.6**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:29	7440-70-2	
Chromium, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7440-47-3	
Copper, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7440-50-8	
Iron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:29	7439-89-6	
Lead, Dissolved	ND	mg/L	0.0050	1	06/04/24 21:45	06/06/24 15:29	7439-92-1	
Lithium, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:29	7439-93-2	
Manganese, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7439-96-5	
Molybdenum, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7439-98-7	
Silver, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:29	7440-22-4	
Sodium, Dissolved	**6.7**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:29	7440-23-5	
Zinc, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:29	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2							
	Pace Analytical Services - Indianapolis							
Antimony	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:17	7440-36-0	
Arsenic	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:17	7440-38-2	
Beryllium	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 09:17	7440-41-7	
Cobalt	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:17	7440-48-4	
Selenium	ND	mg/L	0.0050	1	05/30/24 07:37	06/01/24 09:17	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-109S **Lab ID: 50373903001** Collected: 05/21/24 18:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Thallium	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:17	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:46	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:46	7440-38-2	
Beryllium, Dissolved	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 06:46	7440-41-7	
Cobalt, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:46	7440-48-4	
Selenium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:46	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	mg/L	0.00020	1	06/04/24 10:11	06/04/24 20:25	7439-97-6	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	06/05/24 09:51	06/05/24 20:16	7439-97-6	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Acetone	ND	ug/L	100	1		05/24/24 16:21	67-64-1	
Acrolein	ND	ug/L	50.0	1		05/24/24 16:21	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/24/24 16:21	107-13-1	
Benzene	ND	ug/L	5.0	1		05/24/24 16:21	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/24/24 16:21	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/24/24 16:21	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/24/24 16:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		05/24/24 16:21	78-93-3	
Carbon disulfide	ND	ug/L	10.0	1		05/24/24 16:21	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/24/24 16:21	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/24/24 16:21	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/24/24 16:21	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	50.0	1		05/24/24 16:21	110-75-8	
Chloroform	ND	ug/L	5.0	1		05/24/24 16:21	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/24/24 16:21	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/24/24 16:21	124-48-1	
Dibromomethane	ND	ug/L	5.0	1		05/24/24 16:21	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/24/24 16:21	75-71-8	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/24/24 16:21	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	1		05/24/24 16:21	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/24/24 16:21	75-35-4	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 16:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 16:21	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/24/24 16:21	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-109S **Lab ID: 50373903001** Collected: 05/21/24 18:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Ethyl methacrylate	ND	ug/L	100	1		05/24/24 16:21	97-63-2	
2-Hexanone	ND	ug/L	25.0	1		05/24/24 16:21	591-78-6	
Iodomethane	ND	ug/L	10.0	1		05/24/24 16:21	74-88-4	L1
Methylene Chloride	ND	ug/L	5.0	1		05/24/24 16:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		05/24/24 16:21	108-10-1	
Styrene	ND	ug/L	5.0	1		05/24/24 16:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/24/24 16:21	79-34-5	
Toluene	ND	ug/L	5.0	1		05/24/24 16:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/24/24 16:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/24/24 16:21	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/24/24 16:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/24/24 16:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		05/24/24 16:21	96-18-4	
Vinyl acetate	ND	ug/L	50.0	1		05/24/24 16:21	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		05/24/24 16:21	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		05/24/24 16:21	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	104	%.	82-128	1		05/24/24 16:21	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/24/24 16:21	460-00-4	
Toluene-d8 (S)	97	%.	73-122	1		05/24/24 16:21	2037-26-5	
2510B Specific Conductance	Analytical Method: SM 2510B							
	Pace Analytical Services - Indianapolis							
Specific Conductance	**535**	umhos/cm	10.0	1		06/10/24 17:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
	Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**318**	mg/L	25.0	1		05/28/24 11:57		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
	Pace Analytical Services - Indianapolis							
Chemical Oxygen Demand	ND	mg/L	10.0	1	05/30/24 11:32	05/30/24 17:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
	Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	**7.6**	Std. Units	0.10	1		06/06/24 18:44		H3
350.1 Ammonia	Analytical Method: EPA 350.1							
	Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		06/03/24 14:22	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
	Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	**8.1**	mg/L	0.50	5		05/23/24 17:01	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-109S **Lab ID: 50373903001** Collected: 05/21/24 18:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
420.4 Phenolics, Total	Analytical Method: EPA 420.4 Preparation Method: EPA 420.4 Pace Analytical Services - Indianapolis							
Phenolics, Total Recoverable	ND	ug/L	20.0	1	06/03/24 13:00	06/04/24 15:44	64743-03-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-111S **Lab ID: 50373903002** Collected: 05/21/24 17:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
	Pace Analytical Services - Indianapolis							
Chloride	**24.3**	mg/L	0.25	1		06/05/24 02:43	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	1		06/05/24 02:43	16984-48-8	
Sulfate	**21.2**	mg/L	0.25	1		06/05/24 02:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium	**0.019**	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7440-39-3	
Boron	ND	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	1	06/04/24 16:04	06/06/24 00:44	7440-43-9	
Calcium	**71.9**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:44	7440-70-2	
Chromium	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7440-47-3	
Copper	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7440-50-8	
Iron	**0.37**	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:44	7439-89-6	
Lead	ND	mg/L	0.0050	1	06/04/24 16:04	06/06/24 00:44	7439-92-1	
Lithium	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:44	7439-93-2	
Manganese	**0.099**	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7439-96-5	
Molybdenum	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7439-98-7	
Silver	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:44	7440-22-4	
Sodium	**4.9**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:44	7440-23-5	
Zinc	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:44	7440-66-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.016**	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7440-39-3	
Boron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:38	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0010	1	06/04/24 21:45	06/06/24 15:38	7440-43-9	
Calcium, Dissolved	**69.3**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:38	7440-70-2	
Chromium, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7440-47-3	
Copper, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7440-50-8	
Iron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:38	7439-89-6	
Lead, Dissolved	ND	mg/L	0.0050	1	06/04/24 21:45	06/06/24 15:38	7439-92-1	
Lithium, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:38	7439-93-2	
Manganese, Dissolved	**0.083**	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7439-96-5	
Molybdenum, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7439-98-7	
Silver, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:38	7440-22-4	
Sodium, Dissolved	**4.6**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:38	7440-23-5	
Zinc, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:38	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2							
	Pace Analytical Services - Indianapolis							
Antimony	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:21	7440-36-0	
Arsenic	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:21	7440-38-2	
Beryllium	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 09:21	7440-41-7	
Cobalt	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:21	7440-48-4	
Selenium	ND	mg/L	0.0050	1	05/30/24 07:37	06/01/24 09:21	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-111S **Lab ID: 50373903002** Collected: 05/21/24 17:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Thallium	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:21	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:50	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:50	7440-38-2	
Beryllium, Dissolved	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 06:50	7440-41-7	
Cobalt, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:50	7440-48-4	
Selenium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:50	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 06:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	mg/L	0.00020	1	06/04/24 10:11	06/04/24 20:27	7439-97-6	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	06/05/24 09:51	06/05/24 20:19	7439-97-6	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Acetone	ND	ug/L	100	1		05/24/24 16:52	67-64-1	
Acrolein	ND	ug/L	50.0	1		05/24/24 16:52	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/24/24 16:52	107-13-1	
Benzene	ND	ug/L	5.0	1		05/24/24 16:52	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/24/24 16:52	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/24/24 16:52	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/24/24 16:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		05/24/24 16:52	78-93-3	
Carbon disulfide	ND	ug/L	10.0	1		05/24/24 16:52	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/24/24 16:52	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/24/24 16:52	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/24/24 16:52	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	50.0	1		05/24/24 16:52	110-75-8	
Chloroform	ND	ug/L	5.0	1		05/24/24 16:52	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/24/24 16:52	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/24/24 16:52	124-48-1	
Dibromomethane	ND	ug/L	5.0	1		05/24/24 16:52	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/24/24 16:52	75-71-8	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/24/24 16:52	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	1		05/24/24 16:52	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/24/24 16:52	75-35-4	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 16:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 16:52	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/24/24 16:52	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-111S **Lab ID: 50373903002** Collected: 05/21/24 17:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Ethyl methacrylate	ND	ug/L	100	1		05/24/24 16:52	97-63-2	
2-Hexanone	ND	ug/L	25.0	1		05/24/24 16:52	591-78-6	
Iodomethane	ND	ug/L	10.0	1		05/24/24 16:52	74-88-4	L1
Methylene Chloride	ND	ug/L	5.0	1		05/24/24 16:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		05/24/24 16:52	108-10-1	
Styrene	ND	ug/L	5.0	1		05/24/24 16:52	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/24/24 16:52	79-34-5	
Toluene	ND	ug/L	5.0	1		05/24/24 16:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/24/24 16:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/24/24 16:52	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/24/24 16:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/24/24 16:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		05/24/24 16:52	96-18-4	
Vinyl acetate	ND	ug/L	50.0	1		05/24/24 16:52	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		05/24/24 16:52	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		05/24/24 16:52	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	82-128	1		05/24/24 16:52	1868-53-7	
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/24/24 16:52	460-00-4	
Toluene-d8 (S)	98	%.	73-122	1		05/24/24 16:52	2037-26-5	
2510B Specific Conductance	Analytical Method: SM 2510B							
	Pace Analytical Services - Indianapolis							
Specific Conductance	**500**	umhos/cm	10.0	1		06/10/24 17:10		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
	Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**287**	mg/L	25.0	1		05/28/24 11:58		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
	Pace Analytical Services - Indianapolis							
Chemical Oxygen Demand	ND	mg/L	10.0	1	05/30/24 11:32	05/30/24 17:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
	Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	**7.6**	Std. Units	0.10	1		06/06/24 18:45		H3
350.1 Ammonia	Analytical Method: EPA 350.1							
	Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		06/03/24 14:24	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
	Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	**9.0**	mg/L	0.40	4		05/23/24 16:45	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-111S **Lab ID: 50373903002** Collected: 05/21/24 17:45 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
420.4 Phenolics, Total	Analytical Method: EPA 420.4 Preparation Method: EPA 420.4 Pace Analytical Services - Indianapolis							
Phenolics, Total Recoverable	ND	ug/L	20.0	1	06/03/24 13:00	06/04/24 15:46	64743-03-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: GBS_SHARE-FD-20240521 **Lab ID: 50373903003** Collected: 05/21/24 08:00 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
	Pace Analytical Services - Indianapolis							
Chloride	**15.0**	mg/L	0.25	1		06/05/24 03:00	16887-00-6	
Fluoride	ND	mg/L	0.10	1		06/05/24 03:00	16984-48-8	
Sulfate	**36.7**	mg/L	0.25	1		06/05/24 03:00	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium	**0.012**	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7440-39-3	
Boron	ND	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:46	7440-42-8	
Cadmium	ND	mg/L	0.0010	1	06/04/24 16:04	06/06/24 00:46	7440-43-9	
Calcium	**75.3**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:46	7440-70-2	
Chromium	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7440-47-3	
Copper	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7440-50-8	
Iron	ND	mg/L	0.10	1	06/04/24 16:04	06/06/24 00:46	7439-89-6	
Lead	ND	mg/L	0.0050	1	06/04/24 16:04	06/06/24 00:46	7439-92-1	
Lithium	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:46	7439-93-2	
Manganese	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7439-96-5	
Molybdenum	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7439-98-7	
Silver	ND	mg/L	0.010	1	06/04/24 16:04	06/06/24 00:46	7440-22-4	
Sodium	**6.9**	mg/L	1.0	1	06/04/24 16:04	06/06/24 00:46	7440-23-5	
Zinc	ND	mg/L	0.020	1	06/04/24 16:04	06/06/24 00:46	7440-66-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.011**	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7440-39-3	
Boron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:40	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0010	1	06/04/24 21:45	06/06/24 15:40	7440-43-9	
Calcium, Dissolved	**72.3**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:40	7440-70-2	
Chromium, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7440-47-3	
Copper, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7440-50-8	
Iron, Dissolved	ND	mg/L	0.10	1	06/04/24 21:45	06/06/24 15:40	7439-89-6	
Lead, Dissolved	ND	mg/L	0.0050	1	06/04/24 21:45	06/06/24 15:40	7439-92-1	
Lithium, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:40	7439-93-2	
Manganese, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7439-96-5	
Molybdenum, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7439-98-7	
Silver, Dissolved	ND	mg/L	0.010	1	06/04/24 21:45	06/06/24 15:40	7440-22-4	
Sodium, Dissolved	**6.8**	mg/L	1.0	1	06/04/24 21:45	06/06/24 15:40	7440-23-5	
Zinc, Dissolved	ND	mg/L	0.020	1	06/04/24 21:45	06/06/24 15:40	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2							
	Pace Analytical Services - Indianapolis							
Antimony	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:33	7440-36-0	
Arsenic	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:33	7440-38-2	
Beryllium	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 09:33	7440-41-7	
Cobalt	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:33	7440-48-4	
Selenium	ND	mg/L	0.0050	1	05/30/24 07:37	06/01/24 09:33	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: GBS_SHARE-FD-20240521 **Lab ID: 50373903003** Collected: 05/21/24 08:00 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Thallium	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 09:33	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 07:02	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 07:02	7440-38-2	
Beryllium, Dissolved	ND	mg/L	0.00020	1	05/30/24 07:37	06/01/24 07:02	7440-41-7	
Cobalt, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 07:02	7440-48-4	
Selenium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 07:02	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	1	05/30/24 07:37	06/01/24 07:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	mg/L	0.00020	1	06/04/24 10:11	06/04/24 20:30	7439-97-6	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	06/05/24 09:51	06/05/24 20:21	7439-97-6	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Acetone	ND	ug/L	100	1		05/24/24 17:22	67-64-1	
Acrolein	ND	ug/L	50.0	1		05/24/24 17:22	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/24/24 17:22	107-13-1	
Benzene	ND	ug/L	5.0	1		05/24/24 17:22	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/24/24 17:22	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/24/24 17:22	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/24/24 17:22	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		05/24/24 17:22	78-93-3	
Carbon disulfide	ND	ug/L	10.0	1		05/24/24 17:22	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/24/24 17:22	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/24/24 17:22	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/24/24 17:22	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	50.0	1		05/24/24 17:22	110-75-8	
Chloroform	ND	ug/L	5.0	1		05/24/24 17:22	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/24/24 17:22	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/24/24 17:22	124-48-1	
Dibromomethane	ND	ug/L	5.0	1		05/24/24 17:22	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/24/24 17:22	75-71-8	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/24/24 17:22	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	1		05/24/24 17:22	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/24/24 17:22	75-35-4	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 17:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 17:22	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/24/24 17:22	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: GBS_SHARE-FD-20240521 **Lab ID: 50373903003** Collected: 05/21/24 08:00 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Ethyl methacrylate	ND	ug/L	100	1		05/24/24 17:22	97-63-2	
2-Hexanone	ND	ug/L	25.0	1		05/24/24 17:22	591-78-6	
Iodomethane	ND	ug/L	10.0	1		05/24/24 17:22	74-88-4	L1
Methylene Chloride	ND	ug/L	5.0	1		05/24/24 17:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		05/24/24 17:22	108-10-1	
Styrene	ND	ug/L	5.0	1		05/24/24 17:22	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/24/24 17:22	79-34-5	
Toluene	ND	ug/L	5.0	1		05/24/24 17:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/24/24 17:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/24/24 17:22	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/24/24 17:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/24/24 17:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		05/24/24 17:22	96-18-4	
Vinyl acetate	ND	ug/L	50.0	1		05/24/24 17:22	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		05/24/24 17:22	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		05/24/24 17:22	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%.	82-128	1		05/24/24 17:22	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/24/24 17:22	460-00-4	
Toluene-d8 (S)	96	%.	73-122	1		05/24/24 17:22	2037-26-5	
2510B Specific Conductance	Analytical Method: SM 2510B							
	Pace Analytical Services - Indianapolis							
Specific Conductance	**534**	umhos/cm	10.0	1		06/10/24 17:11		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
	Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**313**	mg/L	25.0	1		05/28/24 11:58		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
	Pace Analytical Services - Indianapolis							
Chemical Oxygen Demand	ND	mg/L	10.0	1	05/30/24 11:32	05/30/24 17:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
	Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	**7.6**	Std. Units	0.10	1		06/06/24 18:45		H3
350.1 Ammonia	Analytical Method: EPA 350.1							
	Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		06/03/24 14:26	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
	Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	**7.6**	mg/L	0.50	5		05/23/24 18:33	14797-55-8	H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: GBS_SHARE-FD-20240521 **Lab ID: 50373903003** Collected: 05/21/24 08:00 Received: 05/22/24 20:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
420.4 Phenolics, Total	Analytical Method: EPA 420.4 Preparation Method: EPA 420.4 Pace Analytical Services - Indianapolis							
Phenolics, Total Recoverable	ND	ug/L	20.0	1	06/03/24 13:00	06/04/24 15:47	64743-03-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793071
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3628861 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	06/04/24 09:01	
Fluoride	mg/L	ND	0.10	06/04/24 09:01	
Sulfate	mg/L	ND	0.25	06/04/24 09:01	

LABORATORY CONTROL SAMPLE: 3628862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3628867 3628868

Parameter	Units	50373861003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.5	2.5	2.5	20.1	20.1	105	106	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.0	108	105	80-120	3	15	
Sulfate	mg/L	39.3	5	5	44.5	44.4	104	101	80-120	0	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793373
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630359 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	06/04/24 20:20	

LABORATORY CONTROL SAMPLE: 3630360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0051	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630361 3630362

Parameter	Units	50373905003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.005	0.005	0.0051	0.0054	100	107	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793458
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630624 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	06/05/24 20:06	

LABORATORY CONTROL SAMPLE: 3630625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.005	0.0050	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630626 3630627

Parameter	Units	50373905005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	0.005	0.005	0.0055	0.0054	109	108	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793481
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630679 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	ND	0.010	06/06/24 00:40	
Boron	mg/L	ND	0.10	06/06/24 00:40	
Cadmium	mg/L	ND	0.0010	06/06/24 00:40	
Calcium	mg/L	ND	1.0	06/06/24 00:40	
Chromium	mg/L	ND	0.010	06/06/24 00:40	
Copper	mg/L	ND	0.010	06/06/24 00:40	
Iron	mg/L	ND	0.10	06/06/24 00:40	
Lead	mg/L	ND	0.0050	06/06/24 00:40	
Lithium	mg/L	ND	0.020	06/06/24 00:40	
Manganese	mg/L	ND	0.010	06/06/24 00:40	
Molybdenum	mg/L	ND	0.010	06/06/24 00:40	
Silver	mg/L	ND	0.010	06/06/24 00:40	
Sodium	mg/L	ND	1.0	06/06/24 00:40	
Zinc	mg/L	ND	0.020	06/06/24 00:40	

LABORATORY CONTROL SAMPLE: 3630680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.99	99	80-120	
Boron	mg/L	1	0.94	94	80-120	
Cadmium	mg/L	1	0.95	95	80-120	
Calcium	mg/L	10	10	100	80-120	
Chromium	mg/L	1	0.97	97	80-120	
Copper	mg/L	1	0.96	96	80-120	
Iron	mg/L	10	9.8	98	80-120	
Lead	mg/L	1	0.93	93	80-120	
Lithium	mg/L	1	0.98	98	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Molybdenum	mg/L	1	1.0	101	80-120	
Silver	mg/L	0.5	0.51	101	80-120	
Sodium	mg/L	10	9.7	97	80-120	
Zinc	mg/L	1	0.95	95	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630681 3630682

Parameter	Units	50374037021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.082	1	1	1.1	1.1	101	98	75-125	2	20	
Boron	mg/L	0.22	1	1	1.2	1.2	96	94	75-125	2	20	
Cadmium	mg/L	ND	1	1	0.97	0.95	97	95	75-125	1	20	
Calcium	mg/L	285	10	10	289	279	40	-57	75-125	3	20	P6
Chromium	mg/L	ND	1	1	0.97	0.95	97	95	75-125	2	20	
Copper	mg/L	ND	1	1	0.99	0.98	99	98	75-125	2	20	
Iron	mg/L	14.7	10	10	24.1	23.7	94	90	75-125	2	20	
Lead	mg/L	ND	1	1	0.91	0.89	91	89	75-125	2	20	
Lithium	mg/L	0.071	1	1	1.1	1.0	100	98	75-125	2	20	
Manganese	mg/L	0.35	1	1	1.3	1.3	94	92	75-125	1	20	
Molybdenum	mg/L	0.0035J	1	1	1.0	1.0	101	100	75-125	1	20	
Silver	mg/L	ND	0.5	0.5	0.53	0.52	105	103	75-125	2	20	
Sodium	mg/L	37.6	10	10	46.7	45.6	91	81	75-125	2	20	
Zinc	mg/L	ND	1	1	0.92	0.91	92	91	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793584
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630976 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Boron, Dissolved	mg/L	ND	0.10	06/06/24 15:25	
Cadmium, Dissolved	mg/L	ND	0.0010	06/06/24 15:25	
Calcium, Dissolved	mg/L	ND	1.0	06/06/24 15:25	
Chromium, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Copper, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Iron, Dissolved	mg/L	ND	0.10	06/06/24 15:25	
Lead, Dissolved	mg/L	ND	0.0050	06/06/24 15:25	
Lithium, Dissolved	mg/L	ND	0.020	06/06/24 15:25	
Manganese, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Molybdenum, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Silver, Dissolved	mg/L	ND	0.010	06/06/24 15:25	
Sodium, Dissolved	mg/L	ND	1.0	06/06/24 15:25	
Zinc, Dissolved	mg/L	ND	0.020	06/06/24 15:25	

LABORATORY CONTROL SAMPLE: 3630977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium, Dissolved	mg/L	1	0.92	92	80-120	
Boron, Dissolved	mg/L	1	0.92	92	80-120	
Cadmium, Dissolved	mg/L	1	0.91	91	80-120	
Calcium, Dissolved	mg/L	10	9.7	97	80-120	
Chromium, Dissolved	mg/L	1	0.95	95	80-120	
Copper, Dissolved	mg/L	1	0.91	91	80-120	
Iron, Dissolved	mg/L	10	9.2	92	80-120	
Lead, Dissolved	mg/L	1	0.91	91	80-120	
Lithium, Dissolved	mg/L	1	0.94	94	80-120	
Manganese, Dissolved	mg/L	1	0.94	94	80-120	
Molybdenum, Dissolved	mg/L	1	0.96	96	80-120	
Silver, Dissolved	mg/L	0.5	0.49	98	80-120	
Sodium, Dissolved	mg/L	10	9.3	93	80-120	
Zinc, Dissolved	mg/L	1	0.94	94	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630978 3630979

Parameter	Units	50373903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium, Dissolved	mg/L	0.012	1	1	0.95	0.99	94	98	75-125	4	20	
Boron, Dissolved	mg/L	ND	1	1	0.96	1.0	94	98	75-125	4	20	
Cadmium, Dissolved	mg/L	ND	1	1	0.92	0.97	92	97	75-125	5	20	
Calcium, Dissolved	mg/L	72.6	10	10	83.6	83.9	110	113	75-125	0	20	
Chromium, Dissolved	mg/L	ND	1	1	0.95	1.0	95	99	75-125	5	20	
Copper, Dissolved	mg/L	ND	1	1	0.92	0.97	92	97	75-125	5	20	
Iron, Dissolved	mg/L	ND	10	10	9.3	9.6	93	96	75-125	4	20	
Lead, Dissolved	mg/L	ND	1	1	0.91	0.95	90	95	75-125	4	20	
Lithium, Dissolved	mg/L	ND	1	1	0.95	1.0	95	100	75-125	6	20	
Manganese, Dissolved	mg/L	ND	1	1	0.94	0.99	94	99	75-125	5	20	
Molybdenum, Dissolved	mg/L	ND	1	1	0.97	1.0	97	102	75-125	5	20	
Silver, Dissolved	mg/L	ND	0.5	0.5	0.50	0.52	99	104	75-125	5	20	
Sodium, Dissolved	mg/L	6.7	10	10	16.1	16.6	95	99	75-125	3	20	
Zinc, Dissolved	mg/L	ND	1	1	0.93	0.98	93	97	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 792636
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3627307 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	06/01/24 09:09	
Arsenic	mg/L	ND	0.0010	06/01/24 09:09	
Beryllium	mg/L	ND	0.00020	06/01/24 09:09	
Cobalt	mg/L	ND	0.0010	06/01/24 09:09	
Selenium	mg/L	ND	0.0050	06/01/24 09:09	
Thallium	mg/L	ND	0.0010	06/01/24 09:09	

LABORATORY CONTROL SAMPLE: 3627308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	105	80-120	
Arsenic	mg/L	0.04	0.039	97	80-120	
Beryllium	mg/L	0.04	0.039	97	80-120	
Cobalt	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.039	98	80-120	
Thallium	mg/L	0.04	0.039	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627309 3627310

Parameter	Units	50373905004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	1	20	
Arsenic	mg/L	0.013	0.04	0.04	0.051	0.052	95	95	75-125	0	20	
Beryllium	mg/L	ND	0.04	0.04	0.038	0.039	95	96	75-125	1	20	
Cobalt	mg/L	ND	0.04	0.04	0.038	0.038	94	95	75-125	1	20	
Selenium	mg/L	ND	0.04	0.04	0.041	0.039	103	97	75-125	6	20	
Thallium	mg/L	ND	0.04	0.04	0.039	0.039	97	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 792632
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3627289 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0010	06/01/24 06:38	
Arsenic, Dissolved	mg/L	ND	0.0010	06/01/24 06:38	
Beryllium, Dissolved	mg/L	ND	0.00020	06/01/24 06:38	
Cobalt, Dissolved	mg/L	ND	0.0010	06/01/24 06:38	
Selenium, Dissolved	mg/L	ND	0.0010	06/01/24 06:38	
Thallium, Dissolved	mg/L	ND	0.0010	06/01/24 06:38	

LABORATORY CONTROL SAMPLE: 3627290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.04	0.043	107	80-120	
Arsenic, Dissolved	mg/L	0.04	0.040	101	80-120	
Beryllium, Dissolved	mg/L	0.04	0.041	102	80-120	
Cobalt, Dissolved	mg/L	0.04	0.042	106	80-120	
Selenium, Dissolved	mg/L	0.04	0.044	110	80-120	
Thallium, Dissolved	mg/L	0.04	0.039	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627291 3627292

Parameter	Units	50373905004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	1	20	
Arsenic, Dissolved	mg/L	0.013	0.04	0.04	0.052	0.053	97	99	75-125	2	20	
Beryllium, Dissolved	mg/L	ND	0.04	0.04	0.039	0.039	98	99	75-125	1	20	
Cobalt, Dissolved	mg/L	ND	0.04	0.04	0.038	0.039	94	95	75-125	0	20	
Selenium, Dissolved	mg/L	ND	0.04	0.04	0.039	0.040	97	101	75-125	4	20	
Thallium, Dissolved	mg/L	ND	0.04	0.04	0.039	0.039	97	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 792047
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV unpreserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3624787 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1,2-Trichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1-Dichloroethene	ug/L	ND	5.0	05/24/24 13:19	
1,2,3-Trichloropropane	ug/L	ND	5.0	05/24/24 13:19	
1,2-Dichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	05/24/24 13:19	
2-Butanone (MEK)	ug/L	ND	25.0	05/24/24 13:19	
2-Chloroethylvinyl ether	ug/L	ND	50.0	05/24/24 13:19	
2-Hexanone	ug/L	ND	25.0	05/24/24 13:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	05/24/24 13:19	
Acetone	ug/L	ND	100	05/24/24 13:19	
Acrolein	ug/L	ND	50.0	05/24/24 13:19	
Acrylonitrile	ug/L	ND	100	05/24/24 13:19	
Benzene	ug/L	ND	5.0	05/24/24 13:19	
Bromodichloromethane	ug/L	ND	5.0	05/24/24 13:19	
Bromoform	ug/L	ND	5.0	05/24/24 13:19	
Bromomethane	ug/L	ND	5.0	05/24/24 13:19	
Carbon disulfide	ug/L	ND	10.0	05/24/24 13:19	
Carbon tetrachloride	ug/L	ND	5.0	05/24/24 13:19	
Chlorobenzene	ug/L	ND	5.0	05/24/24 13:19	
Chloroethane	ug/L	ND	5.0	05/24/24 13:19	
Chloroform	ug/L	ND	5.0	05/24/24 13:19	
Chloromethane	ug/L	ND	5.0	05/24/24 13:19	
cis-1,3-Dichloropropene	ug/L	ND	5.0	05/24/24 13:19	
Dibromochloromethane	ug/L	ND	5.0	05/24/24 13:19	
Dibromomethane	ug/L	ND	5.0	05/24/24 13:19	
Dichlorodifluoromethane	ug/L	ND	5.0	05/24/24 13:19	
Ethyl methacrylate	ug/L	ND	100	05/24/24 13:19	
Ethylbenzene	ug/L	ND	5.0	05/24/24 13:19	
Iodomethane	ug/L	ND	10.0	05/24/24 13:19	
Methylene Chloride	ug/L	ND	5.0	05/24/24 13:19	
Styrene	ug/L	ND	5.0	05/24/24 13:19	
Toluene	ug/L	ND	5.0	05/24/24 13:19	
trans-1,3-Dichloropropene	ug/L	ND	5.0	05/24/24 13:19	
Trichloroethene	ug/L	ND	5.0	05/24/24 13:19	
Trichlorofluoromethane	ug/L	ND	5.0	05/24/24 13:19	
Vinyl acetate	ug/L	ND	50.0	05/24/24 13:19	
Vinyl chloride	ug/L	ND	2.0	05/24/24 13:19	
Xylene (Total)	ug/L	ND	10.0	05/24/24 13:19	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

METHOD BLANK: 3624787 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%.	98	79-124	05/24/24 13:19	
Dibromofluoromethane (S)	%.	103	82-128	05/24/24 13:19	1d
Toluene-d8 (S)	%.	95	73-122	05/24/24 13:19	

LABORATORY CONTROL SAMPLE: 3624788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.8	102	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	47.3	95	70-126	
1,1,2-Trichloroethane	ug/L	50	50.8	102	79-125	
1,1-Dichloroethene	ug/L	50	49.2	98	71-130	
1,2,3-Trichloropropane	ug/L	50	49.1	98	74-127	
1,2-Dichloroethane	ug/L	50	49.5	99	72-123	
1,2-Dichloroethene (Total)	ug/L	100	104	104	75-122	
2-Butanone (MEK)	ug/L	250	220	88	67-135	
2-Chloroethylvinyl ether	ug/L	250	194	78	45-144	
2-Hexanone	ug/L	250	246	98	65-135	
4-Methyl-2-pentanone (MIBK)	ug/L	250	250	100	69-136	
Acetone	ug/L	250	202	81	34-156	
Acrolein	ug/L	1000	946	95	59-191	
Acrylonitrile	ug/L	250	252	101	67-146	
Benzene	ug/L	50	52.3	105	76-122	
Bromodichloromethane	ug/L	50	55.2	110	80-126	
Bromoform	ug/L	50	54.7	109	77-124	
Bromomethane	ug/L	50	81.5	163	10-175	
Carbon disulfide	ug/L	50	45.5	91	69-121	
Carbon tetrachloride	ug/L	50	54.1	108	73-127	
Chlorobenzene	ug/L	50	50.7	101	76-118	
Chloroethane	ug/L	50	50.9	102	36-162	
Chloroform	ug/L	50	51.4	103	78-121	
Chloromethane	ug/L	50	48.6	97	37-143	
cis-1,3-Dichloropropene	ug/L	50	56.5	113	76-132	
Dibromochloromethane	ug/L	50	56.4	113	79-130	
Dibromomethane	ug/L	50	53.9	108	79-124	
Dichlorodifluoromethane	ug/L	50	26.7	53	29-126	
Ethyl methacrylate	ug/L	50	56.2J	112	78-137	
Ethylbenzene	ug/L	50	53.8	108	76-120	
Iodomethane	ug/L	50	84.0	168	10-148	L1
Methylene Chloride	ug/L	50	50.7	101	71-121	
Styrene	ug/L	50	52.4	105	80-121	
Toluene	ug/L	50	50.1	100	74-118	
trans-1,3-Dichloropropene	ug/L	50	57.8	116	77-126	
Trichloroethene	ug/L	50	51.6	103	74-125	
Trichlorofluoromethane	ug/L	50	48.0	96	64-138	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

LABORATORY CONTROL SAMPLE: 3624788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl acetate	ug/L	200	263	131	74-154	
Vinyl chloride	ug/L	50	47.5	95	55-139	
Xylene (Total)	ug/L	150	150	100	73-119	
4-Bromofluorobenzene (S)	%.			102	79-124	
Dibromofluoromethane (S)	%.			102	82-128	
Toluene-d8 (S)	%.			98	73-122	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 794720 | Analysis Method: SM 2510B
QC Batch Method: SM 2510B | Analysis Description: 2510B Specific Conductance
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3636348 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	06/10/24 16:49	

LABORATORY CONTROL SAMPLE: 3636349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1410	1340	95	90-110	

SAMPLE DUPLICATE: 3636350

Parameter	Units	50373902006 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	6380	6310	1	20	

SAMPLE DUPLICATE: 3636351

Parameter	Units	50373902014 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	2010	2020	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 792212 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3625855 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	05/28/24 11:51	

LABORATORY CONTROL SAMPLE: 3625856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3625857

Parameter	Units	50373872003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	250	239	4	10	

SAMPLE DUPLICATE: 3625858

Parameter	Units	50373906001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1190	1190	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 792796
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3627846 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	05/30/24 17:25	

LABORATORY CONTROL SAMPLE: 3627847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	49.5	50.3	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3627848 3627849

Parameter	Units	50373903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	ND	49.5	49.5	55.4	48.0	98	83	90-110	14	20	M0

MATRIX SPIKE SAMPLE: 3627850

Parameter	Units	50373948001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	27.7	49.5	69.7	85	90-110	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 794003
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

SAMPLE DUPLICATE: 3632695

Parameter	Units	50373902006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	7.0	1	2	H3

SAMPLE DUPLICATE: 3632696

Parameter	Units	50373902014 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	1	2	H3

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793349 | Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 | Analysis Description: 350.1 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630277 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	06/03/24 13:52	

LABORATORY CONTROL SAMPLE: 3630278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630279 3630280

Parameter	Units	50373908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.4	5	5	6.6	6.6	103	103	90-110	0	20	

MATRIX SPIKE SAMPLE: 3630281

Parameter	Units	50373908004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.1	5	6.3	104	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 791705
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002

METHOD BLANK: 3622848 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	05/23/24 18:36	

LABORATORY CONTROL SAMPLE: 3622849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3622850 3622851

Parameter	Units	50373911001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	104	104	90-110	1	20	

MATRIX SPIKE SAMPLE: 3622942

Parameter	Units	50373908009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.65	63	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 791757
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903003

METHOD BLANK: 3623041 Matrix: Water
Associated Lab Samples: 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	05/23/24 18:31	

LABORATORY CONTROL SAMPLE: 3623042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3623043 3623044

Parameter	Units	50373902006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.91	0.91	89	89	90-110	0	20	

MATRIX SPIKE SAMPLE: 3623045

Parameter	Units	50373905004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	0.80	78	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 793301
QC Batch Method: EPA 420.4
Analysis Method: EPA 420.4
Analysis Description: 420.4 Phenolics
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3630166 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	ND	20.0	06/04/24 15:42	

LABORATORY CONTROL SAMPLE: 3630167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	50	49.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630168 3630169

Parameter	Units	50373946005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phenolics, Total Recoverable	ug/L	ND	50	50	51.6	54.0	98	102	90-110	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-109S **Lab ID: 50373903001** Collected: 05/21/24 18:45 Received: 05/22/24 20:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.403U ± 0.424 (0.955) C:NA T:93%**	pCi/L	06/17/24 16:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.384U ± 0.326 (0.645) C:85% T:82%**	pCi/L	06/04/24 15:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.384U ± 0.750 (1.60)**	pCi/L	06/17/24 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: MW-111S **Lab ID: 50373903002** Collected: 05/21/24 17:45 Received: 05/22/24 20:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0435U ± 0.226 (0.522) C:NA T:98%**	pCi/L	06/17/24 16:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.752 ± 0.400 (0.704) C:84% T:83%**	pCi/L	06/04/24 15:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.752U ± 0.626 (1.23)**	pCi/L	06/17/24 17:19	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Sample: GBS_SHARE-FD-20240521 **Lab ID: 50373903003** Collected: 05/21/24 08:00 Received: 05/22/24 20:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.185U ± 0.462 (0.956) C:NA T:93%**	pCi/L	06/17/24 16:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.257U ± 0.332 (0.706) C:86% T:84%**	pCi/L	06/04/24 15:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.257U ± 0.794 (1.66)**	pCi/L	06/17/24 17:19	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 671620
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3270325 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.116 ± 0.178 (0.466) C:NA T:88%	pCi/L	06/17/24 15:54	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50373903

QC Batch: 671622
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50373903001, 50373903002, 50373903003

METHOD BLANK: 3270326 Matrix: Water
Associated Lab Samples: 50373903001, 50373903002, 50373903003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.605 ± 0.388 (0.718) C:83% T:81%	pCi/L	06/04/24 15:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Gibson SLF New Wells
Pace Project No.: 50373903

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.
H3	Sample was received or analysis requested beyond the recognized method holding time.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373903001	**MW-109S**	EPA 9056	793071		
50373903002	**MW-111S**	EPA 9056	793071		
50373903003	**GBS_SHARE-FD-20240521**	EPA 9056	793071		
50373903001	**MW-109S**	EPA 3010	793481	EPA 6010	794070
50373903002	**MW-111S**	EPA 3010	793481	EPA 6010	794070
50373903003	**GBS_SHARE-FD-20240521**	EPA 3010	793481	EPA 6010	794070
50373903001	**MW-109S**	EPA 3010	793584	EPA 6010	794241
50373903002	**MW-111S**	EPA 3010	793584	EPA 6010	794241
50373903003	**GBS_SHARE-FD-20240521**	EPA 3010	793584	EPA 6010	794241
50373903001	**MW-109S**	EPA 200.2	792636	EPA 6020	792885
50373903002	**MW-111S**	EPA 200.2	792636	EPA 6020	792885
50373903003	**GBS_SHARE-FD-20240521**	EPA 200.2	792636	EPA 6020	792885
50373903001	**MW-109S**	EPA 200.2	792632	EPA 6020	792880
50373903002	**MW-111S**	EPA 200.2	792632	EPA 6020	792880
50373903003	**GBS_SHARE-FD-20240521**	EPA 200.2	792632	EPA 6020	792880
50373903001	**MW-109S**	EPA 7470	793373	EPA 7470	793717
50373903002	**MW-111S**	EPA 7470	793373	EPA 7470	793717
50373903003	**GBS_SHARE-FD-20240521**	EPA 7470	793373	EPA 7470	793717
50373903001	**MW-109S**	EPA 7470	793458	EPA 7470	793982
50373903002	**MW-111S**	EPA 7470	793458	EPA 7470	793982
50373903003	**GBS_SHARE-FD-20240521**	EPA 7470	793458	EPA 7470	793982
50373903001	**MW-109S**	EPA 8260	792047		
50373903002	**MW-111S**	EPA 8260	792047		
50373903003	**GBS_SHARE-FD-20240521**	EPA 8260	792047		
50373903001	**MW-109S**	EPA 903.1	671620		
50373903002	**MW-111S**	EPA 903.1	671620		
50373903003	**GBS_SHARE-FD-20240521**	EPA 903.1	671620		
50373903001	**MW-109S**	EPA 904.0	671622		
50373903002	**MW-111S**	EPA 904.0	671622		
50373903003	**GBS_SHARE-FD-20240521**	EPA 904.0	671622		
50373903001	**MW-109S**	Total Radium Calculation	676379		
50373903002	**MW-111S**	Total Radium Calculation	676379		
50373903003	**GBS_SHARE-FD-20240521**	Total Radium Calculation	676379		
50373903001	**MW-109S**	SM 2510B	794720		
50373903002	**MW-111S**	SM 2510B	794720		
50373903003	**GBS_SHARE-FD-20240521**	SM 2510B	794720		
50373903001	**MW-109S**	SM 2540C	792212		
50373903002	**MW-111S**	SM 2540C	792212		
50373903003	**GBS_SHARE-FD-20240521**	SM 2540C	792212		
50373903001	**MW-109S**	EPA 410.4	792796	EPA 410.4	792996
50373903002	**MW-111S**	EPA 410.4	792796	EPA 410.4	792996
50373903003	**GBS_SHARE-FD-20240521**	EPA 410.4	792796	EPA 410.4	792996

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Gibson SLF New Wells
Pace Project No.: 50373903

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50373903001	**MW-109S**	SM 4500-H+B	794003		
50373903002	**MW-111S**	SM 4500-H+B	794003		
50373903003	**GBS_SHARE-FD-20240521**	SM 4500-H+B	794003		
50373903001	**MW-109S**	EPA 350.1	793349		
50373903002	**MW-111S**	EPA 350.1	793349		
50373903003	**GBS_SHARE-FD-20240521**	EPA 350.1	793349		
50373903001	**MW-109S**	EPA 353.2	791705		
50373903002	**MW-111S**	EPA 353.2	791705		
50373903003	**GBS_SHARE-FD-20240521**	EPA 353.2	791757		
50373903001	**MW-109S**	EPA 420.4	793301	EPA 420.4	793654
50373903002	**MW-111S**	EPA 420.4	793301	EPA 420.4	793654
50373903003	**GBS_SHARE-FD-20240521**	EPA 420.4	793301	EPA 420.4	793654

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All r

WO# : 50373903

50373903

Page 1 Of 1

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	Duke Energy-Gibson Generating Station	Report To:	Colleen Sweazy	Attention:	Accounts Payable
Address:	GIBSON GENERATING STATION	Copy To:		Company Name:	Duke Energy
	Owensville, IN 47665			Address:	
Email:	colleen.sweazy@duke-energy.com	Purchase Order #:		Pace Quote:	
Phone:	317-838-2161 Fax:	Project Name:	Gibson SLF New Wells	Pace Project Manager:	kenneth.hunt@pacelabs.com,
Requested Due Date:	Standard	Project #:		Pace Profile #:	5992 Line 7

Regulatory Agency

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, **Nitrate-353.2**	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace® PA	Ra 228 Sub Pace® PA		Residual Chlorine (Y/N)	
																		Requested Analysis Filtered (Y/N)				Y									
1	MW-109S	WT		5/21	1645				12	6	2	4							X	X	X	X	X	X	X	X	X		
2	MW-111S	WT		~~1214 5/21~~		5/21	1705		12	6	2	4							X	X	X	X	X	X	X	X	X		
3	MW-112S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X		
4	GBS_SHARE-FD-2024 0521	WT		5/21	—				12	6	2	4							X	X	X	X	X	X	X	X	X		
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals 6010:(Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S Blacksmith Apex	5/22	1700				
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470		5/22	2045		5/22	2045	SLE Sun Y Y Y
~~Nitrate 353.2 Short Hold (48 hours)~~							

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Sean Blacksmith				
SIGNATURE of SAMPLER:		DATE Signed:	5-22-24		

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: JBM 20:45 5/22/24

1. **Courier:** ☐FED EX | UPS ☐CLIENT ☐PACE ☒NOW/JETT | ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A (B) C D E F G H
4. **Cooler Temperature(s):** (Initial/Corrected) 1.8/1.8 | | | |
   RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** | |Bubble Wrap ☒ Bubble Bags | | None | | Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes ☒No
   If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**			
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3	✓		**Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U	DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1							3						—				2	1	2	1	1	—							M	✓	✓		
2							↓						↓				↓	↓	↓	↓	↓	↓							↓	✓	✓		
3																																	
4							3						1				2	1	2	1	1	1							M	✓	✓		
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	~~250mL H2SO4 amb glass field filtered~~
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	~~250mL HNO3 plastic field filtered~~		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 19, 2024

Ms. Colleen Sweazy
Duke Energy
1097 N 950 W
Owensville, IN 47665

RE: Project: Gibson SLF New Wells
Pace Project No.: 50374080

Dear Ms. Sweazy:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

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

Sincerely,

Kenneth Hunt
kenneth.hunt@pacelabs.com
(317)228-3120
Project Manager

Enclosures

cc: Ms. Samanta Lax, ATC Group Services
Mr. Bryan Moeller, Duke Energy
Mr. Shane Neumann, Duke Energy Gibson
Mr. John Noel, ATC Group Services
Colton Palmer, Atlas Technical Consultants
Mr. Joshua Stowe, Duke Energy

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50374080001	**MW-112S**	Water	05/23/24 09:50	05/23/24 20:56

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50374080001	**MW-112S**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	14	PASI-I
		EPA 6010	NWB	14	PASI-I
		EPA 6020	DMT	6	PASI-I
		EPA 6020	MTM	6	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 7470	EAE	1	PASI-I
		EPA 8260	TMW	43	PASI-I
		EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		SM 2510B	QAK	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 410.4	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
		EPA 350.1	MTW	1	PASI-I
		EPA 353.2	ZM	1	PASI-I
		EPA 420.4	OAS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 9056**
Description: 9056 IC Anions
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 794414

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3634590)
  - Sulfate
- MSD (Lab ID: 3634591)
  - Sulfate

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 793486

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50374070022

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3630694)
  - Calcium

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 793779

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50374076001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3632004)
  - Calcium, Dissolved

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 6020**
Description: 6020 MET ICPMS, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 7470**
Description: 7470 Mercury
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
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PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 7470**
Description: 7470 Mercury, Dissolved
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 8260**
Description: 8260/5030 MSV unpreserved
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 8260 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 792047

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 3624788)
  - Iodomethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 792047

1d: Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.

- BLANK (Lab ID: 3624787)
  - Dibromofluoromethane (S)

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **SM 2510B**
Description: 2510B Specific Conductance
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for SM 2510B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 410.4**
Description: 410.4 COD
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 410.4 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 793222

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50374033006,50374041002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MSD (Lab ID: 3629783)
  - Chemical Oxygen Demand

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.

- MS (Lab ID: 3629780)
  - Chemical Oxygen Demand
- MSD (Lab ID: 3629781)
  - Chemical Oxygen Demand

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- MW-112S (Lab ID: 50374080001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 350.1 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 353.2 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

PROJECT NARRATIVE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Method: **EPA 420.4**
Description: 420.4 Phenolics, Total
Client: Duke Energy Gibson Generating Station
Date: June 19, 2024

General Information:
1 sample was analyzed for EPA 420.4 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 420.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 794398

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50374557005,50374563005

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 3634536)
  - Phenolics, Total Recoverable

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.
- MS (Lab ID: 3634534)
  - Phenolics, Total Recoverable
- MSD (Lab ID: 3634535)
  - Phenolics, Total Recoverable

R1: RPD value was outside control limits.
- MSD (Lab ID: 3634535)
  - Phenolics, Total Recoverable

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Sample: MW-112S **Lab ID: 50374080001** Collected: 05/23/24 09:50 Received: 05/23/24 20:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
	Pace Analytical Services - Indianapolis							
Chloride	**9.7**	mg/L	0.25	1		06/08/24 03:20	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	1		06/08/24 03:20	16984-48-8	
Sulfate	**18.4**	mg/L	0.25	1		06/08/24 03:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium	**0.034**	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7440-39-3	
Boron	ND	mg/L	0.10	1	06/04/24 21:55	06/07/24 11:50	7440-42-8	
Cadmium	ND	mg/L	0.0010	1	06/04/24 21:55	06/07/24 11:50	7440-43-9	
Calcium	**54.8**	mg/L	1.0	1	06/04/24 21:55	06/07/24 11:50	7440-70-2	
Chromium	ND	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7440-47-3	
Copper	ND	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7440-50-8	
Iron	**0.15**	mg/L	0.10	1	06/04/24 21:55	06/07/24 11:50	7439-89-6	
Lead	ND	mg/L	0.0050	1	06/04/24 21:55	06/07/24 11:50	7439-92-1	
Lithium	ND	mg/L	0.020	1	06/04/24 21:55	06/07/24 11:50	7439-93-2	
Manganese	**0.36**	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7439-96-5	
Molybdenum	ND	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7439-98-7	
Silver	ND	mg/L	0.010	1	06/04/24 21:55	06/07/24 11:50	7440-22-4	
Sodium	**4.0**	mg/L	1.0	1	06/04/24 21:55	06/07/24 11:50	7440-23-5	
Zinc	ND	mg/L	0.020	1	06/04/24 21:55	06/07/24 11:50	7440-66-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.035**	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7440-39-3	
Boron, Dissolved	ND	mg/L	0.10	1	06/06/24 16:12	06/07/24 10:12	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0010	1	06/06/24 16:12	06/07/24 10:12	7440-43-9	
Calcium, Dissolved	**57.1**	mg/L	1.0	1	06/06/24 16:12	06/07/24 10:12	7440-70-2	
Chromium, Dissolved	ND	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7440-47-3	
Copper, Dissolved	ND	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7440-50-8	
Iron, Dissolved	ND	mg/L	0.10	1	06/06/24 16:12	06/07/24 10:12	7439-89-6	
Lead, Dissolved	ND	mg/L	0.0050	1	06/06/24 16:12	06/07/24 10:12	7439-92-1	
Lithium, Dissolved	ND	mg/L	0.020	1	06/06/24 16:12	06/07/24 10:12	7439-93-2	
Manganese, Dissolved	**0.36**	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7439-96-5	
Molybdenum, Dissolved	ND	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7439-98-7	
Silver, Dissolved	ND	mg/L	0.010	1	06/06/24 16:12	06/07/24 10:12	7440-22-4	
Sodium, Dissolved	**4.1**	mg/L	1.0	1	06/06/24 16:12	06/07/24 10:12	7440-23-5	
Zinc, Dissolved	ND	mg/L	0.020	1	06/06/24 16:12	06/07/24 10:12	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2							
	Pace Analytical Services - Indianapolis							
Antimony	ND	mg/L	0.0010	1	06/04/24 07:42	06/05/24 07:44	7440-36-0	
Arsenic	ND	mg/L	0.0010	1	06/04/24 07:42	06/05/24 07:44	7440-38-2	
Beryllium	ND	mg/L	0.00020	1	06/04/24 07:42	06/05/24 07:44	7440-41-7	
Cobalt	ND	mg/L	0.0010	1	06/04/24 07:42	06/06/24 04:59	7440-48-4	
Selenium	ND	mg/L	0.0050	1	06/04/24 07:42	06/05/24 07:44	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Sample: MW-112S **Lab ID: 50374080001** Collected: 05/23/24 09:50 Received: 05/23/24 20:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Thallium	ND	mg/L	0.0010	1	06/04/24 07:42	06/05/24 07:44	7440-28-0	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Antimony, Dissolved	ND	mg/L	0.0010	1	06/04/24 07:42	06/06/24 05:48	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0010	1	06/04/24 07:42	06/06/24 05:48	7440-38-2	
Beryllium, Dissolved	ND	mg/L	0.00020	1	06/04/24 07:42	06/07/24 06:38	7440-41-7	
Cobalt, Dissolved	ND	mg/L	0.0010	1	06/04/24 07:42	06/06/24 05:48	7440-48-4	
Selenium, Dissolved	**0.0012**	mg/L	0.0010	1	06/04/24 07:42	06/06/24 05:48	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	1	06/04/24 07:42	06/06/24 05:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury	ND	mg/L	0.00020	1	06/07/24 13:58	06/09/24 18:45	7439-97-6	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	06/07/24 14:06	06/09/24 21:07	7439-97-6	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Acetone	ND	ug/L	100	1		05/24/24 19:23	67-64-1	
Acrolein	ND	ug/L	50.0	1		05/24/24 19:23	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/24/24 19:23	107-13-1	
Benzene	ND	ug/L	5.0	1		05/24/24 19:23	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/24/24 19:23	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/24/24 19:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/24/24 19:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		05/24/24 19:23	78-93-3	
Carbon disulfide	ND	ug/L	10.0	1		05/24/24 19:23	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/24/24 19:23	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/24/24 19:23	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/24/24 19:23	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	50.0	1		05/24/24 19:23	110-75-8	
Chloroform	ND	ug/L	5.0	1		05/24/24 19:23	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/24/24 19:23	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/24/24 19:23	124-48-1	
Dibromomethane	ND	ug/L	5.0	1		05/24/24 19:23	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/24/24 19:23	75-71-8	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/24/24 19:23	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	1		05/24/24 19:23	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/24/24 19:23	75-35-4	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 19:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/24/24 19:23	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/24/24 19:23	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Sample: MW-112S **Lab ID: 50374080001** Collected: 05/23/24 09:50 Received: 05/23/24 20:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Ethyl methacrylate	ND	ug/L	100	1		05/24/24 19:23	97-63-2	
2-Hexanone	ND	ug/L	25.0	1		05/24/24 19:23	591-78-6	
Iodomethane	ND	ug/L	10.0	1		05/24/24 19:23	74-88-4	L1
Methylene Chloride	ND	ug/L	5.0	1		05/24/24 19:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		05/24/24 19:23	108-10-1	
Styrene	ND	ug/L	5.0	1		05/24/24 19:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/24/24 19:23	79-34-5	
Toluene	ND	ug/L	5.0	1		05/24/24 19:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/24/24 19:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/24/24 19:23	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/24/24 19:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/24/24 19:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		05/24/24 19:23	96-18-4	
Vinyl acetate	ND	ug/L	50.0	1		05/24/24 19:23	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		05/24/24 19:23	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		05/24/24 19:23	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	105	%.	82-128	1		05/24/24 19:23	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/24/24 19:23	460-00-4	
Toluene-d8 (S)	96	%.	73-122	1		05/24/24 19:23	2037-26-5	
2510B Specific Conductance	Analytical Method: SM 2510B							
	Pace Analytical Services - Indianapolis							
Specific Conductance	**416**	umhos/cm	10.0	1		06/11/24 16:37		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
	Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**210**	mg/L	25.0	1		05/30/24 13:33		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
	Pace Analytical Services - Indianapolis							
Chemical Oxygen Demand	ND	mg/L	10.0	1	06/01/24 10:47	06/01/24 13:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
	Pace Analytical Services - Indianapolis							
pH at 25 Degrees C	**6.7**	Std. Units	0.10	1		06/10/24 12:03		H3
350.1 Ammonia	Analytical Method: EPA 350.1							
	Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		06/06/24 09:54	7664-41-7	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
	Pace Analytical Services - Indianapolis							
Nitrogen, Nitrate	ND	mg/L	0.10	1		05/24/24 16:53	14797-55-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Sample: MW-112S **Lab ID: 50374080001** Collected: 05/23/24 09:50 Received: 05/23/24 20:56 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
420.4 Phenolics, Total	Analytical Method: EPA 420.4 Preparation Method: EPA 420.4 Pace Analytical Services - Indianapolis							
Phenolics, Total Recoverable	ND	ug/L	20.0	1	06/07/24 10:00	06/07/24 16:58	64743-03-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794414
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3634588 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	06/07/24 19:11	
Fluoride	mg/L	ND	0.10	06/07/24 19:11	
Sulfate	mg/L	ND	0.25	06/07/24 19:11	

LABORATORY CONTROL SAMPLE: 3634589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	106	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3634590 3634591

Parameter	Units	50374041002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	82.5	25	25	107	107	96	97	80-120	0	15	
Fluoride	mg/L	2.1	1	1	3.2	3.2	110	110	80-120	0	15	
Sulfate	mg/L	49.1	5	5	54.1	54.0	101	99	80-120	0	15	E

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793918
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3632398 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	06/09/24 18:32	

LABORATORY CONTROL SAMPLE: 3632399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.005	0.0051	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632400 3632401

Parameter	Units	50374082002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.005	0.005	0.0047	0.0050	93	101	75-125	8	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794266
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3633803 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	06/09/24 20:49	

LABORATORY CONTROL SAMPLE: 3633804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.005	0.0050	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633805 3633806

Parameter	Units	50374192001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	0.005	0.005	0.0049	0.0049	98	98	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793486
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3630691 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	ND	0.010	06/07/24 10:58	
Boron	mg/L	ND	0.10	06/07/24 10:58	
Cadmium	mg/L	ND	0.0010	06/07/24 10:58	
Calcium	mg/L	ND	1.0	06/07/24 10:58	
Chromium	mg/L	ND	0.010	06/07/24 10:58	
Copper	mg/L	ND	0.010	06/07/24 10:58	
Iron	mg/L	ND	0.10	06/07/24 10:58	
Lead	mg/L	ND	0.0050	06/07/24 10:58	
Lithium	mg/L	ND	0.020	06/07/24 10:58	
Manganese	mg/L	ND	0.010	06/07/24 10:58	
Molybdenum	mg/L	ND	0.010	06/07/24 10:58	
Silver	mg/L	ND	0.010	06/07/24 10:58	
Sodium	mg/L	ND	1.0	06/07/24 10:58	
Zinc	mg/L	ND	0.020	06/07/24 10:58	

LABORATORY CONTROL SAMPLE: 3630692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	1	0.93	93	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	1	0.97	97	80-120	
Calcium	mg/L	10	10.0	100	80-120	
Chromium	mg/L	1	0.98	98	80-120	
Copper	mg/L	1	0.93	93	80-120	
Iron	mg/L	10	9.3	93	80-120	
Lead	mg/L	1	0.97	97	80-120	
Lithium	mg/L	1	0.98	98	80-120	
Manganese	mg/L	1	1.0	100	80-120	
Molybdenum	mg/L	1	0.99	99	80-120	
Silver	mg/L	0.5	0.51	102	80-120	
Sodium	mg/L	10	9.5	95	80-120	
Zinc	mg/L	1	0.99	99	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630693 3630694

Parameter	Units	50374070022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.059	1	1	0.98	0.99	92	93	75-125	2	20	
Boron	mg/L	5.3	1	1	6.2	6.1	94	87	75-125	1	20	
Cadmium	mg/L	ND	1	1	0.97	0.98	97	98	75-125	2	20	
Calcium	mg/L	187	10	10	195	194	75	71	75-125	0	20	P6
Chromium	mg/L	ND	1	1	0.95	0.96	95	96	75-125	1	20	
Copper	mg/L	ND	1	1	0.92	0.94	92	94	75-125	2	20	
Iron	mg/L	ND	10	10	9.0	9.1	90	90	75-125	1	20	
Lead	mg/L	ND	1	1	0.93	0.94	93	94	75-125	1	20	
Lithium	mg/L	ND	1	1	0.97	0.99	96	98	75-125	2	20	
Manganese	mg/L	0.84	1	1	1.8	1.8	95	94	75-125	0	20	
Molybdenum	mg/L	0.021	1	1	1.0	1.0	99	100	75-125	2	20	
Silver	mg/L	ND	0.5	0.5	0.51	0.52	103	103	75-125	1	20	
Sodium	mg/L	69.8	10	10	77.7	78.7	79	89	75-125	1	20	
Zinc	mg/L	ND	1	1	0.96	0.97	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793779
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50374080001

METHOD BLANK: 3632002 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Boron, Dissolved	mg/L	ND	0.10	06/07/24 09:50	
Cadmium, Dissolved	mg/L	ND	0.0010	06/07/24 09:50	
Calcium, Dissolved	mg/L	ND	1.0	06/07/24 09:50	
Chromium, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Copper, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Iron, Dissolved	mg/L	ND	0.10	06/07/24 09:50	
Lead, Dissolved	mg/L	ND	0.0050	06/07/24 09:50	
Lithium, Dissolved	mg/L	ND	0.020	06/07/24 09:50	
Manganese, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Molybdenum, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Silver, Dissolved	mg/L	ND	0.010	06/07/24 09:50	
Sodium, Dissolved	mg/L	ND	1.0	06/07/24 09:50	
Zinc, Dissolved	mg/L	ND	0.020	06/07/24 09:50	

LABORATORY CONTROL SAMPLE: 3632003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium, Dissolved	mg/L	1	0.99	99	80-120	
Boron, Dissolved	mg/L	1	0.97	97	80-120	
Cadmium, Dissolved	mg/L	1	1.0	101	80-120	
Calcium, Dissolved	mg/L	10	10.3	103	80-120	
Chromium, Dissolved	mg/L	1	1.0	101	80-120	
Copper, Dissolved	mg/L	1	0.97	97	80-120	
Iron, Dissolved	mg/L	10	9.8	98	80-120	
Lead, Dissolved	mg/L	1	0.99	99	80-120	
Lithium, Dissolved	mg/L	1	1.0	101	80-120	
Manganese, Dissolved	mg/L	1	1.0	103	80-120	
Molybdenum, Dissolved	mg/L	1	1.0	103	80-120	
Silver, Dissolved	mg/L	0.5	0.51	102	80-120	
Sodium, Dissolved	mg/L	10	9.8	98	80-120	
Zinc, Dissolved	mg/L	1	1.0	103	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3632004 3632005

Parameter	Units	50374076001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium, Dissolved	mg/L	0.050	1	1	0.96	1.0	91	96	75-125	6	20	
Boron, Dissolved	mg/L	ND	1	1	0.93	0.99	91	97	75-125	6	20	
Cadmium, Dissolved	mg/L	ND	1	1	0.94	0.99	94	99	75-125	5	20	
Calcium, Dissolved	mg/L	95.3	10	10	100	105	48	95	75-125	5	20	P6
Chromium, Dissolved	mg/L	ND	1	1	0.93	0.98	93	98	75-125	6	20	
Copper, Dissolved	mg/L	ND	1	1	0.90	0.95	90	95	75-125	6	20	
Iron, Dissolved	mg/L	1.7	10	10	10.6	11.2	90	96	75-125	6	20	
Lead, Dissolved	mg/L	ND	1	1	0.89	0.95	89	95	75-125	6	20	
Lithium, Dissolved	mg/L	ND	1	1	0.93	0.99	93	99	75-125	6	20	
Manganese, Dissolved	mg/L	0.23	1	1	1.2	1.2	93	99	75-125	5	20	
Molybdenum, Dissolved	mg/L	ND	1	1	0.96	1.0	95	101	75-125	6	20	
Silver, Dissolved	mg/L	ND	0.5	0.5	0.48	0.51	96	101	75-125	6	20	
Sodium, Dissolved	mg/L	7.8	10	10	16.5	17.4	87	95	75-125	5	20	
Zinc, Dissolved	mg/L	ND	1	1	0.94	0.99	94	99	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793430
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50374080001

METHOD BLANK: 3630533 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	06/05/24 06:33	
Arsenic	mg/L	ND	0.0010	06/05/24 06:33	
Beryllium	mg/L	ND	0.00020	06/05/24 06:33	
Cobalt	mg/L	ND	0.0010	06/05/24 06:33	
Selenium	mg/L	ND	0.0050	06/05/24 06:33	
Thallium	mg/L	ND	0.0010	06/05/24 06:33	

LABORATORY CONTROL SAMPLE: 3630534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	106	80-120	
Arsenic	mg/L	0.04	0.040	99	80-120	
Beryllium	mg/L	0.04	0.039	98	80-120	
Cobalt	mg/L	0.04	0.042	105	80-120	
Selenium	mg/L	0.04	0.040	101	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630535 3630536

Parameter	Units	50374070004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	1	20	
Arsenic	mg/L	0.011	0.04	0.04	0.049	0.050	96	98	75-125	2	20	
Beryllium	mg/L	ND	0.04	0.04	0.040	0.040	99	99	75-125	0	20	
Cobalt	mg/L	0.0011	0.04	0.04	0.036	0.037	88	89	75-125	0	20	
Selenium	mg/L	0.0067	0.04	0.04	0.048	0.049	102	106	75-125	3	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.043	106	108	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793427
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3630521 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0010	06/05/24 21:47	
Arsenic, Dissolved	mg/L	ND	0.0010	06/05/24 21:47	
Beryllium, Dissolved	mg/L	ND	0.00020	06/05/24 21:47	
Cobalt, Dissolved	mg/L	ND	0.0010	06/05/24 21:47	
Selenium, Dissolved	mg/L	ND	0.0010	06/05/24 21:47	
Thallium, Dissolved	mg/L	ND	0.0010	06/05/24 21:47	

LABORATORY CONTROL SAMPLE: 3630522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.04	0.042	105	80-120	
Arsenic, Dissolved	mg/L	0.04	0.040	101	80-120	
Beryllium, Dissolved	mg/L	0.04	0.038	96	80-120	
Cobalt, Dissolved	mg/L	0.04	0.041	103	80-120	
Selenium, Dissolved	mg/L	0.04	0.041	101	80-120	
Thallium, Dissolved	mg/L	0.04	0.039	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3630523 3630524

Parameter	Units	50374070009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	0.04	0.04	0.042	0.042	106	106	75-125	0	20	
Arsenic, Dissolved	mg/L	0.013	0.04	0.04	0.053	0.053	102	100	75-125	1	20	
Beryllium, Dissolved	mg/L	ND	0.04	0.04	0.038	0.038	94	94	75-125	0	20	
Cobalt, Dissolved	mg/L	ND	0.04	0.04	0.038	0.039	94	94	75-125	1	20	
Selenium, Dissolved	mg/L	ND	0.04	0.04	0.040	0.037	100	94	75-125	7	20	
Thallium, Dissolved	mg/L	ND	0.04	0.04	0.038	0.039	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 792047
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV unpreserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3624787 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1,2-Trichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,1-Dichloroethene	ug/L	ND	5.0	05/24/24 13:19	
1,2,3-Trichloropropane	ug/L	ND	5.0	05/24/24 13:19	
1,2-Dichloroethane	ug/L	ND	5.0	05/24/24 13:19	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	05/24/24 13:19	
2-Butanone (MEK)	ug/L	ND	25.0	05/24/24 13:19	
2-Chloroethylvinyl ether	ug/L	ND	50.0	05/24/24 13:19	
2-Hexanone	ug/L	ND	25.0	05/24/24 13:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	05/24/24 13:19	
Acetone	ug/L	ND	100	05/24/24 13:19	
Acrolein	ug/L	ND	50.0	05/24/24 13:19	
Acrylonitrile	ug/L	ND	100	05/24/24 13:19	
Benzene	ug/L	ND	5.0	05/24/24 13:19	
Bromodichloromethane	ug/L	ND	5.0	05/24/24 13:19	
Bromoform	ug/L	ND	5.0	05/24/24 13:19	
Bromomethane	ug/L	ND	5.0	05/24/24 13:19	
Carbon disulfide	ug/L	ND	10.0	05/24/24 13:19	
Carbon tetrachloride	ug/L	ND	5.0	05/24/24 13:19	
Chlorobenzene	ug/L	ND	5.0	05/24/24 13:19	
Chloroethane	ug/L	ND	5.0	05/24/24 13:19	
Chloroform	ug/L	ND	5.0	05/24/24 13:19	
Chloromethane	ug/L	ND	5.0	05/24/24 13:19	
cis-1,3-Dichloropropene	ug/L	ND	5.0	05/24/24 13:19	
Dibromochloromethane	ug/L	ND	5.0	05/24/24 13:19	
Dibromomethane	ug/L	ND	5.0	05/24/24 13:19	
Dichlorodifluoromethane	ug/L	ND	5.0	05/24/24 13:19	
Ethyl methacrylate	ug/L	ND	100	05/24/24 13:19	
Ethylbenzene	ug/L	ND	5.0	05/24/24 13:19	
Iodomethane	ug/L	ND	10.0	05/24/24 13:19	
Methylene Chloride	ug/L	ND	5.0	05/24/24 13:19	
Styrene	ug/L	ND	5.0	05/24/24 13:19	
Toluene	ug/L	ND	5.0	05/24/24 13:19	
trans-1,3-Dichloropropene	ug/L	ND	5.0	05/24/24 13:19	
Trichloroethene	ug/L	ND	5.0	05/24/24 13:19	
Trichlorofluoromethane	ug/L	ND	5.0	05/24/24 13:19	
Vinyl acetate	ug/L	ND	50.0	05/24/24 13:19	
Vinyl chloride	ug/L	ND	2.0	05/24/24 13:19	
Xylene (Total)	ug/L	ND	10.0	05/24/24 13:19	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

METHOD BLANK: 3624787 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%.	98	79-124	05/24/24 13:19	
Dibromofluoromethane (S)	%.	103	82-128	05/24/24 13:19	1d
Toluene-d8 (S)	%.	95	73-122	05/24/24 13:19	

LABORATORY CONTROL SAMPLE: 3624788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.8	102	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	47.3	95	70-126	
1,1,2-Trichloroethane	ug/L	50	50.8	102	79-125	
1,1-Dichloroethene	ug/L	50	49.2	98	71-130	
1,2,3-Trichloropropane	ug/L	50	49.1	98	74-127	
1,2-Dichloroethane	ug/L	50	49.5	99	72-123	
1,2-Dichloroethene (Total)	ug/L	100	104	104	75-122	
2-Butanone (MEK)	ug/L	250	220	88	67-135	
2-Chloroethylvinyl ether	ug/L	250	194	78	45-144	
2-Hexanone	ug/L	250	246	98	65-135	
4-Methyl-2-pentanone (MIBK)	ug/L	250	250	100	69-136	
Acetone	ug/L	250	202	81	34-156	
Acrolein	ug/L	1000	946	95	59-191	
Acrylonitrile	ug/L	250	252	101	67-146	
Benzene	ug/L	50	52.3	105	76-122	
Bromodichloromethane	ug/L	50	55.2	110	80-126	
Bromoform	ug/L	50	54.7	109	77-124	
Bromomethane	ug/L	50	81.5	163	10-175	
Carbon disulfide	ug/L	50	45.5	91	69-121	
Carbon tetrachloride	ug/L	50	54.1	108	73-127	
Chlorobenzene	ug/L	50	50.7	101	76-118	
Chloroethane	ug/L	50	50.9	102	36-162	
Chloroform	ug/L	50	51.4	103	78-121	
Chloromethane	ug/L	50	48.6	97	37-143	
cis-1,3-Dichloropropene	ug/L	50	56.5	113	76-132	
Dibromochloromethane	ug/L	50	56.4	113	79-130	
Dibromomethane	ug/L	50	53.9	108	79-124	
Dichlorodifluoromethane	ug/L	50	26.7	53	29-126	
Ethyl methacrylate	ug/L	50	56.2J	112	78-137	
Ethylbenzene	ug/L	50	53.8	108	76-120	
Iodomethane	ug/L	50	84.0	168	10-148	L1
Methylene Chloride	ug/L	50	50.7	101	71-121	
Styrene	ug/L	50	52.4	105	80-121	
Toluene	ug/L	50	50.1	100	74-118	
trans-1,3-Dichloropropene	ug/L	50	57.8	116	77-126	
Trichloroethene	ug/L	50	51.6	103	74-125	
Trichlorofluoromethane	ug/L	50	48.0	96	64-138	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

LABORATORY CONTROL SAMPLE: 3624788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl acetate	ug/L	200	263	131	74-154	
Vinyl chloride	ug/L	50	47.5	95	55-139	
Xylene (Total)	ug/L	150	150	100	73-119	
4-Bromofluorobenzene (S)	%.			102	79-124	
Dibromofluoromethane (S)	%.			102	82-128	
Toluene-d8 (S)	%.			98	73-122	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794730
QC Batch Method: SM 2510B
Analysis Method: SM 2510B
Analysis Description: 2510B Specific Conductance
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3636381 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	06/11/24 16:26	

LABORATORY CONTROL SAMPLE: 3636382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1410	1330	94	90-110	

SAMPLE DUPLICATE: 3636383

Parameter	Units	50374078001 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	532	539	1	20	

SAMPLE DUPLICATE: 3636384

Parameter	Units	50374090007 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	749	748	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 792718
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3627536 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	05/30/24 13:26	

LABORATORY CONTROL SAMPLE: 3627537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	271	90	80-120	

SAMPLE DUPLICATE: 3627538

Parameter	Units	50374070017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1640	1640	0	10	

SAMPLE DUPLICATE: 3627539

Parameter	Units	50374070022 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	916	932	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 793222
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3629778 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	06/01/24 13:36	

LABORATORY CONTROL SAMPLE: 3629779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	49.5	49.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3629780 3629781

Parameter	Units	50374041002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	42.9	49.5	49.5	85.4	79.9	86	75	90-110	7	20	M3

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3629782 3629783

Parameter	Units	50374033006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	16.9	49.5	49.5	62.0	58.2	91	83	90-110	6	20	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794738
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50374080001

SAMPLE DUPLICATE: 3636408

Parameter	Units	50374077001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	9.0	9.1	1	2	H3

SAMPLE DUPLICATE: 3636409

Parameter	Units	50374090005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794097
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3633163 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	06/06/24 09:17	

LABORATORY CONTROL SAMPLE: 3633164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.2	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3633165 3633166

Parameter	Units	50374049001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.31	5	5	5.5	5.4	103	102	90-110	0	20	

MATRIX SPIKE SAMPLE: 3633167

Parameter	Units	50374090001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.41	5	5.6	104	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 791950
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3624225 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	05/24/24 16:28	

LABORATORY CONTROL SAMPLE: 3624226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	1.1	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3624227 3624228

Parameter	Units	50374070014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.1	1.1	107	108	90-110	0	20	

MATRIX SPIKE SAMPLE: 3624229

Parameter	Units	50374075001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	1	1.1	106	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 794398
QC Batch Method: EPA 420.4
Analysis Method: EPA 420.4
Analysis Description: 420.4 Phenolics
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50374080001

METHOD BLANK: 3634532 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	ND	20.0	06/07/24 16:54	

LABORATORY CONTROL SAMPLE: 3634533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	50	46.4	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3634534 3634535

Parameter	Units	50374557005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phenolics, Total Recoverable	ug/L	0.0055J mg/L	50	50	72.8	53.3	135	96	90-110	31	20	M3,R1

MATRIX SPIKE SAMPLE: 3634536

Parameter	Units	50374563005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	0.018J mg/L	50	55.1	74	90-110	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(317)228-3100

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Sample: MW-112S **Lab ID: 50374080001** Collected: 05/23/24 09:50 Received: 05/23/24 20:56 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.116U ± 0.508 (1.05) C:NA T:94%**	pCi/L	06/18/24 15:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.542U ± 0.393 (0.775) C:85% T:88%**	pCi/L	06/13/24 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.542U ± 0.901 (1.83)**	pCi/L	06/18/24 16:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 672713
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374080001

METHOD BLANK: 3275057 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.173 ± 0.241 (0.402) C:NA T:93%	pCi/L	06/18/24 15:14	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Gibson SLF New Wells
Pace Project No.: 50374080

QC Batch: 672715
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50374080001

METHOD BLANK: 3275075 Matrix: Water
Associated Lab Samples: 50374080001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.456 ± 0.323 (0.621) C:85% T:87%	pCi/L	06/13/24 11:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Gibson SLF New Wells
Pace Project No.: 50374080

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Gibson SLF New Wells
Pace Project No.: 50374080

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50374080001	**MW-112S**	EPA 9056	794414		
50374080001	**MW-112S**	EPA 3010	793486	EPA 6010	794442
50374080001	**MW-112S**	EPA 3010	793779	EPA 6010	794419
50374080001	**MW-112S**	EPA 200.2	793430	EPA 6020	793754
50374080001	**MW-112S**	EPA 200.2	793427	EPA 6020	793752
50374080001	**MW-112S**	EPA 7470	793918	EPA 7470	794644
50374080001	**MW-112S**	EPA 7470	794266	EPA 7470	794646
50374080001	**MW-112S**	EPA 8260	792047		
50374080001	**MW-112S**	EPA 903.1	672713		
50374080001	**MW-112S**	EPA 904.0	672715		
50374080001	**MW-112S**	Total Radium Calculation	676701		
50374080001	**MW-112S**	SM 2510B	794730		
50374080001	**MW-112S**	SM 2540C	792718		
50374080001	**MW-112S**	EPA 410.4	793222	EPA 410.4	793226
50374080001	**MW-112S**	SM 4500-H+B	794738		
50374080001	**MW-112S**	EPA 350.1	794097		
50374080001	**MW-112S**	EPA 353.2	791950		
50374080001	**MW-112S**	EPA 420.4	794398	EPA 420.4	794510

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO# : 50374080

50374080

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Duke Energy-Gibson Generating Station	Report To: Colleen Sweazy	Attention: Accounts Payable
Address: GIBSON GENERATING STATION	Copy To:	Company Name: Duke Energy
Owensville, IN 47665		Address:
Email: colleen.sweazy@duke-energy.com	Purchase Order #:	Pace Quote:
Phone: 317-838-2161 Fax:	Project Name: Gibson SLF New Wells	Pace Project Manager: kenneth.hunt@pacelabs.com,
Requested Due Date: Standard	Project #:	Pace Profile #: 5992 Line 7

1

IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	IC-9056 (Cl, F, SO4)	Tot Metals *	Diss Metals FF *	TDS 2540C	pH 4500, Conductance 2510B, Nitrate-353.2	Ammonia 350.1/COD 410.4	Phenolics 420.4	Ra 226 Sub Pace® PA	Ra 228 Sub Pace® PA	Residual Chlorine (Y/N)
	MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y										
1	MW-109S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X	
2	MW-111S	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X	
3	MW-112S	WT		5/23	950				12	6	2	4							X	X	X	X	X	X	X	X	* X	X	
4	GBS_SHARE-FD-2024	WT							12	6	2	4							X	X	X	X	X	X	X	X	X	X	
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals 6010:(Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ag, Zn, Ca, Na, Li)	S Blacksmith	5/23	1700				
Metals Continued: 6020 (Be, Co, As, Se, Sb, Tl), Mercury 7470		5/23	1654		5/23	1654	SBS SCH G G G
Nitrate 353.2 Short Hold (48 hours)							

SAMPLER NAME AND SIGNATURE						
PRINT Name of SAMPLER:	Sean Blacksmith					
SIGNATURE of SAMPLER:		DATE Signed:	5-23-24	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/23/24 20:56 TBH

1. Courier: ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☑ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 0.8/0.8 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

8. EZ Bottle Order? ☐ Yes ☑ No

If yes but not on COC what is the EZ Bottle Order Number?:

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: NO3-353.2	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent ✓	No VOA Vials Sent ✓ SMK 5/24
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9D	DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																	
2																																	
3							3						1				2	1	2	1	1	1							M	✓	✓			
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

From: WEAVER, TROY
To: Sweazy, Colleen; Hummel, Lindsey
Cc: John Noel
Subject: RE: [EXTERNAL] RE: Gibson well install and abandonments
Date: Tuesday, May 23, 2023 8:07:20 AM
Attachments: image001.png
image002.png

Good morning, Colleen.

Yes, it is acceptable for the Gibson RWS I landfill to collect additional background data on a semiannual schedule, at this time.

I understand why you ask if this CCR RWS I has to include the full list under 329 IAC 10-29-10(a), but since the rule specifies this list, we recommend that you include the full list. This is likely how the RWS I handled background sampling in the past. (FYI – the list is/may be more applicable to a non-municipal landfill, but it is just how the rule was wrote back in the day).

Thanks for your attention to this matter.

Troy

Troy Weaver
Geologist 1
Geology Section - Permits Branch
Office of Land Quality
317-233-2430 • tweaver@idem.IN.gov

Indiana Department of Environmental Management
100 N. Senate Avenue, Indianapolis, IN 46204
https://www.in.gov/idem/waste/

IDEM values your feedback.
Please take two minutes and complete this brief survey.

From: Sweazy, Colleen <Colleen.Sweazy@duke-energy.com>
Sent: Thursday, May 18, 2023 12:25 PM
To: WEAVER, TROY <TWEAVER@idem.IN.gov>; Hummel, Lindsey <LHummel@idem.IN.gov>
Cc: John Noel <john.noel@oneatlas.com>
Subject: RE: [EXTERNAL] RE: Gibson well install and abandonments

---

Hi Troy,

I had a few follow up questions on the well installation work at the SALF. No huge rush on a response for these.

-We anticipate construction completion of new cells to wrap up around July, 2025. That said, it appears we have time to conduct the 4 quarterly background sampling events as part of our regular

semiannual sampling. This would decrease additional sampling mobilizations and lower project costs a bit. Does this approach work for you to collect background samples semiannually?

-Understand the sampling parameters in IAC 10-29-10 are different from the typical CCR monitoring parameters. Wanted to verify we are supposed to collect VOC's that are stated in 10-29-10(2), which may be related to municipal waste landfills? Or are we only to sample the inorganic parameters?

Regards,

Colleen

From: WEAVER, TROY <TWEAVER@idem.IN.gov>
Sent: Wednesday, May 17, 2023 11:44 AM
To: Sweazy, Colleen <Colleen.Sweazy@duke-energy.com>; Hummel, Lindsey <LHummel@idem.IN.gov>
Cc: John Noel <john.noel@oneatlas.com>
Subject: [EXTERNAL] RE: Gibson well install and abandonments

Great, thank you for the update, Colleen.

Troy Weaver
Geologist 1
Geology Section - Permits Branch
Office of Land Quality
317-233-2430 • tweaver@idem.IN.gov

Indiana Department of Environmental Management
100 N. Senate Avenue, Indianapolis, IN 46204
https://www.in.gov/idem/waste/

From: Sweazy, Colleen <Colleen.Sweazy@duke-energy.com>
Sent: Wednesday, May 17, 2023 12:24 PM
To: WEAVER, TROY <TWEAVER@idem.IN.gov>; Hummel, Lindsey <LHummel@idem.IN.gov>
Cc: John Noel <john.noel@oneatlas.com>
Subject: Gibson well install and abandonments

Troy and Lindsey,

Although we are working through several weather delays on site, we plan to begin well and piezometer installation, abandonment, and conversion activities soon for Gibson South Landfill and Gibson North Ash Pond. Wanted to provide an updated on these activities that have IDEM approved work plans.

Let me know if you have any questions,

Colleen