Energy Fuels Resources (USA) Inc.
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Lakewood, CO, US, 80228
303 974 2140
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January 24, 2024

Arizona Department of Environmental Quality
Groundwater Protection Value Steam
Mail Code 5415B-3
1110 W. Washington St.
Phoenix, AZ 85007

Re: Pinyon Plain Mine, Individual Aquifer Protection Permit No. P-100333, Annual Report for 2023

Dear Sir or Madam:

Enclosed please find Energy Fuels Resources (USA) Inc.'s ("EFRI's") 2023 Annual Report for the Pinyon Plain Mine (the "Mine") in accordance with Section 2.7.4.1 of the Mine's Individual Aquifer Protection Permit No. P-100333 (the "APP").

Pumping Operational Summary

The attached Table 1 includes the daily volume of water pumped from underground mining areas for 2023. This includes the meter results for water pumped from the lined shaft sump and the water capture rings. As noted in Table 1, from August 12th through September 21st totals are based on tank rise in the tank that is filled by the ring water. Flow meters are working, but not accurately totalizing at the time. Daily volumes are actuals based on amount of water stored from the ring. Meter readings were reset and the system recalibrated on October 7th, December 3rd, 5th, and 15th. No other events that caused meter outages or anomalous readings were recorded in 2023.

Sump Water Quality Analytical Results

The attached Table 2 includes a summary of the analytical results for the quarterly sump water quality samples. These samples are collected from the outfall point where mine water discharges from the underground sump into the non-storm water impoundment.

Groundwater Elevations

The attached Table 3 includes a summary of groundwater elevations for the three wells completed in the perched Coconino groundwater. These depth to water measurements were collected during quarterly ambient groundwater monitoring.

Groundwater Quality Summary

On October 26, 2022, the ADEQ approved a Minor Amendment of the APP to establish an alert level ("AL") and aquifer quality limit ("AQL") for arsenic and an AQL for uranium for Point of Compliance ("POC") Monitoring Well #4 (i.e., the Redwall-Muav water supply/monitoring well). Table 4 includes data for the groundwater quality summary for the Monitoring Well #4 for arsenic and uranium. At this time, EFRI is still in the process of collecting the minimum of ten rounds of ambient groundwater monitoring for POC Monitoring Wells #1 through #3 pursuant to Section 2.5.3.2 of the APP and for the remaining parameters for POC Monitoring Well #4 in accordance with Table 8 of the APP.

Water Budget Throughout Mine Operations

As shown in Table 1, the average flow rate of water pumped from the lined shaft sump and water capture rings during 2023 was approximately 10.33 and 7.6 gpm, respectively, with a combined rate of approximately 17.97 gpm. Water from the lined shaft sump is either pumped directly to the non-stormwater impoundment or to one of two water storage tanks. Water from the capture rings is pumped directly to a water storage tank. All water pumped into the impoundment was effectively managed through natural and enhanced evaporation and freeboard levels were maintained throughout the year. Water from the capture rings was either treated using the water treatment system prior to use for dust control on site, hauled off-site for beneficial use by ranchers, or managed through direct evaporation.

Development Rock Stockpile Construction Update

The Development Rock Stockpile ("DRS") was constructed in 2022.

Intermediate Ore Stockpile Construction Update

As of December 31, 2023, the Intermediate Ore Stockpile has been constructed. The "As Built" report was submitted on December 14, 2023 in accordance with Section 3.0, Compliance Schedule Item 9 of Aquifer Protection Permit No. P-100333. The Project Report was submitted on January 16, 2024 per request of ADEQ.

Please feel free to contact me at 303-389-4132 or Jordan App at 303-389-4131 if you have any questions or concerns.

Sincerely,

ENERGY FUELS RESOURCES (USA) INC.
Scott A. Bakken
Vice President, Regulatory Affairs

Att Table 1: Pumping Operational Summary
Table 2: Sump Water Quality Analytical Results
Table 3: Groundwater Elevations
Table 4: Groundwater Quality Summary
Attachment 1: Sump Analytical Data

cc: Kathy Weinel, Travis Chiotti, Race Fisher, Nick Martin, Matt Germansen, Jordan App (EFRI)
Diana Gutierrez (ADEQ)

SIGNATURE AND CERTIFICATION

This document was prepared by Energy Fuels Resources (USA) Inc. based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

1/24/24

Signature of Responsible Official — Date

Scott A. Bakken
Vice President, Regulatory Affairs

TABLES

TABLE 1

Pinyon Plain Mine Daily Volume of Water Pumped from Underground Mining Areas during 2023

Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)
First Quarter 2023																	
January 2023						**February 2023**						**March 2023**					
1/1/2023	1,559,620	12,724	1,350,285	10,733	23,457	2/1/2023	1,959,557	12,179	1,673,943	10,667	22,846	3/1/2023	2,294,717	15,316	1,940,536	1	15,317
1/2/2023	1,572,638	13,018	1,361,408	11,123	24,141	2/2/2023	1,972,899	13,342	1,684,511	10,568	23,910	3/2/2023	2,307,291	12,574	1,946,711	6175	18,749
1/3/2023	1,585,620	12,982	1,372,086	10,678	23,660	2/3/2023	1,984,600	11,701	1,695,018	10,507	22,208	3/3/2023	2,323,209	15,918	1,957,396	10685	26,603
1/4/2023	1,598,418	12,798	1,382,952	10,866	23,664	2/4/2023	1,998,607	14,007	1,705,537	10,519	24,526	3/4/2023	2,331,300	8,091	1,968,212	10816	18,907
1/5/2023	1,611,537	13,119	1,393,615	10,663	23,782	2/5/2023	2,008,841	10,234	1,716,131	10,594	20,828	3/5/2023	2,340,388	9,088	1,978,863	10651	19,739
1/6/2023	1,626,403	14,866	1,404,416	10,801	25,667	2/6/2023	2,022,415	13,574	1,726,881	10,750	24,324	3/6/2023	2,357,582	17,194	1,989,595	10732	27,926
1/7/2023	1,633,988	7,585	1,415,137	10,721	18,306	2/7/2023	2,034,572	12,157	1,737,441	10,560	22,717	3/7/2023	2,371,407	13,825	2,000,298	10703	24,528
1/8/2023	1,644,985	10,997	1,425,650	10,513	21,510	2/8/2023	2,044,915	10,343	1,747,941	10,500	20,843	3/8/2023	2,384,845	13,438	2,010,815	10517	23,955
1/9/2023	1,653,755	8,770	1,436,244	10,594	19,364	2/9/2023	2,055,685	10,770	1,758,616	10,675	21,445	3/9/2023	2,397,877	13,032	2,021,557	10742	23,774
1/10/2023	1,669,525	15,770	1,446,360	10,116	25,886	2/10/2023	2,062,371	6,686	1,769,159	10,543	17,229	3/10/2023	2,410,548	12,671	2,032,093	10536	23,207
1/11/2023	1,684,685	15,160	1,457,177	10,817	25,977	2/11/2023	2,080,366	17,995	1,779,766	10,607	28,602	3/11/2023	2,424,518	13,970	2,042,752	10659	24,629
1/12/2023	1,698,869	14,184	1,467,642	10,465	24,649	2/12/2023	2,091,660	11,294	1,790,259	10,493	21,787	3/12/2023	2,437,113	12,595	2,053,587	10835	23,430
1/13/2023	1,712,348	13,479	1,478,273	10,631	24,110	2/13/2023	2,102,073	10,413	1,800,946	10,687	21,100	3/13/2023	2,450,021	12,908	2,064,264	10677	23,585
1/14/2023	1,724,435	12,087	1,488,851	10,578	22,665	2/14/2023	2,113,222	11,149	1,811,460	10,514	21,663	3/14/2023	2,462,997	12,976	2,075,189	10925	23,901
1/15/2023	1,737,175	12,740	1,499,374	10,523	23,263	2/15/2023	2,130,309	17,087	1,822,203	10,743	27,830	3/15/2023	2,473,809	10,812	2,086,154	10965	21,777
1/16/2023	1,750,170	12,995	1,509,985	10,611	23,606	2/16/2023	2,139,304	8,995	1,832,927	10,724	19,719	3/16/2023	2,480,964	7,155	2,097,283	11129	18,284
1/17/2023	1,763,467	13,297	1,520,811	10,826	24,123	2/17/2023	2,146,908	7,604	1,843,382	10,455	18,059	3/17/2023	2,492,228	11,264	2,108,269	10986	22,250
1/18/2023	1,776,739	13,272	1,531,764	10,953	24,225	2/18/2023	2,149,238	2,330	1,854,056	10,674	13,004	3/18/2023	2,512,437	20,209	2,119,464	11195	31,404
1/19/2023	1,787,733	10,994	1,542,425	10,661	21,655	2/19/2023	2,164,442	15,204	1,864,653	10,597	25,801	3/19/2023	2,528,369	15,932	2,130,397	10933	26,865
1/20/2023	1,802,188	14,455	1,553,040	10,615	25,070	2/20/2023	2,176,755	12,313	1,875,306	10,653	22,966	3/20/2023	2,542,594	14,225	2,141,638	11241	25,466
1/21/2023	1,817,437	15,249	1,563,877	10,837	26,086	2/21/2023	2,184,783	8,028	1,885,963	10,657	18,685	3/21/2023	2,556,224	13,630	2,152,962	11324	24,954
1/22/2023	1,831,893	14,456	1,574,494	10,617	25,073	2/22/2023	2,197,307	12,524	1,896,544	10,581	23,105	3/22/2023	2,569,652	13,428	2,164,536	11574	25,002
1/23/2023	1,845,038	13,145	1,585,282	10,788	23,933	2/23/2023	2,217,969	20,662	1,907,528	10,984	31,646	3/23/2023	2,583,269	13,617	2,176,173	11637	25,254
1/24/2023	1,858,101	13,063	1,596,139	10,857	23,920	2/24/2023	2,234,147	16,178	1,918,190	10,662	26,840	3/24/2023	2,597,221	13,952	2,187,890	11717	25,669
1/25/2023	1,870,542	12,441	1,606,635	10,496	22,937	2/25/2023	2,241,635	7,488	1,928,844	10,654	18,142	3/25/2023	2,611,303	14,082	2,199,165	11275	25,357
1/26/2023	1,883,228	12,686	1,617,233	10,598	23,284	2/26/2023	2,247,331	5,696	1,934,855	6,011	11,707	3/26/2023	2,626,223	14,920	2,210,730	11565	26,485
1/27/2023	1,895,008	11,780	1,627,485	10,252	22,032	2/27/2023	2,260,457	13,126	1,940,249	5,394	18,520	3/27/2023	2,641,997	15,774	2,222,429	11699	27,473
1/28/2023	1,901,781	6,773	1,638,320	10,835	17,608	2/28/2023	2,279,401	18,944	1,940,535	286	19,230	3/28/2023	2,653,364	11,367	2,234,048	11619	22,986
1/29/2023	1,916,891	15,110	1,656,083	17,763	32,873							3/29/2023	2,670,644	17,280	2,245,761	11713	28,993
1/30/2023	1,933,295	16,404	1,656,132	49	16,453							3/30/2023	2,684,579	13,935	2,257,395	11634	25,569
1/31/2023	1,947,378	14,083	1,663,276	7,144	21,227							3/31/2023	2,696,147	11,568	2,269,077	11682	23,250
Total Gallons Pumped for Jan.		**400,482**		**323,724**	**724,206**	**Total Gallons Pumped for Feb.**		**332,023**		**277,259**	**609,282**	**Total Gallons Pumped for March**		**416,746**		**328,542**	**745,288**
Daily gallons pumped		12919		10,443	23,361	Daily gallons pumped		11858		9,902	21,760	Daily gallons pumped		13443		10,598	24,042
Hourly gallons pumped		538		435	973	Hourly gallons pumped		494		413	907	Hourly gallons pumped		560		442	1,002
GPM for January		8.97		7.25	16.22	GPM for February		8.23		6.88	15.11	GPM for March		9.34		7.36	16.70
												Total for the Quarter					**2,078,776**

Table 1

Pinyon Plain Mine Daily Volume of Water Pumped from Underground Mining Areas during 2023

Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)
Second Quarter 2023																	
April 2023						**May 2023**						**June 2023**					
4/1/2023	2,706,317	10,170	2,281,172	12,095	22,265	5/1/2023	3,214,377	10,939	2,655,302	11,964	22,903	6/1/2023	3,685,379	15,060	3,013,746	10,908	25,968
4/2/2023	2,725,844	19,527	2,293,504	12,332	31,859	5/2/2023	3,231,834	17,457	2,667,196	11,894	29,351	6/2/2023	3,699,725	14,346	3,025,002	11,256	25,602
4/3/2023	2,744,522	18,678	2,306,076	12,572	31,250	5/3/2023	3,252,753	20,919	2,679,835	12,639	33,558	6/3/2023	3,715,724	15,999	3,035,970	10,968	26,967
4/4/2023	2,762,203	17,681	2,319,096	13,020	30,701	5/4/2023	3,269,808	17,055	2,691,728	11,893	28,948	6/4/2023	3,731,864	16,140	3,046,783	10,813	26,953
4/5/2023	2,779,910	17,707	2,332,231	13,135	30,842	5/5/2023	3,286,541	16,733	2,703,473	11,745	28,478	6/5/2023	3,745,126	13,262	3,057,716	10,933	24,195
4/6/2023	2,798,411	18,501	2,345,076	12,845	31,346	5/6/2023	3,302,569	16,028	2,715,452	11,979	28,007	6/6/2023	3,758,228	13,102	3,068,622	10,906	24,008
4/7/2023	2,818,155	19,744	2,357,978	12,902	32,646	5/7/2023	3,318,470	15,901	2,727,058	11,606	27,507	6/7/2023	3,775,133	16,905	3,079,482	10,860	27,765
4/8/2023	2,835,120	16,965	2,370,842	12,864	29,829	5/8/2023	3,333,232	14,762	2,738,821	11,763	26,525	6/8/2023	3,784,574	9,441	3,090,222	10,740	20,181
4/9/2023	2,850,292	15,172	2,383,659	12,817	27,989	5/9/2023	3,348,674	15,442	2,750,398	11,577	27,019	6/9/2023	3,803,257	18,683	3,101,057	10,835	29,518
4/10/2023	2,862,779	12,487	2,396,169	12,510	24,997	5/10/2023	3,362,879	14,205	2,762,001	11,603	25,808	6/10/2023	3,817,798	14,541	3,111,066	10,009	24,550
4/11/2023	2,880,310	17,531	2,409,161	12,992	30,523	5/11/2023	3,373,939	11,060	2,773,696	11,695	22,755	6/11/2023	3,836,118	18,320	3,120,434	9,368	27,688
4/12/2023	2,905,991	25,681	2,422,667	13,506	39,187	5/12/2023	3,390,410	16,471	2,785,326	11,630	28,101	6/12/2023	3,852,740	16,622	3,131,497	11,063	27,685
4/13/2023	2,922,752	16,761	2,435,830	13,163	29,924	5/13/2023	3,405,297	14,887	2,797,059	11,733	26,620	6/13/2023	3,858,917	6,177	3,142,029	10,532	16,709
4/14/2023	2,935,523	12,771	2,448,789	12,959	25,730	5/14/2023	3,416,823	11,526	2,808,648	11,589	23,115	6/14/2023	3,876,978	18,061	3,152,903	10,874	28,935
4/15/2023	2,950,310	14,787	2,461,468	12,679	27,466	5/15/2023	3,433,452	16,629	2,820,166	11,518	28,147	6/15/2023	3,889,170	12,192	3,164,104	11,201	23,393
4/16/2023	2,968,895	18,585	2,473,894	12,426	31,011	5/16/2023	3,445,311	11,859	2,832,049	11,883	23,742	6/16/2023	3,906,755	17,585	3,175,078	10,974	28,559
4/17/2023	2,992,026	23,131	2,486,150	12,256	35,387	5/17/2023	3,453,345	8,034	2,843,986	11,937	19,971	6/17/2023	3,918,224	11,469	3,186,224	11,146	22,615
4/18/2023	3,013,679	21,653	2,498,307	12,157	33,810	5/18/2023	3,472,358	19,013	2,855,508	11,522	30,535	6/18/2023	3,934,280	16,056	3,197,089	10,865	26,921
4/19/2023	3,028,144	14,465	2,510,700	12,393	26,858	5/19/2023	3,489,346	16,988	2,866,902	11,394	28,382	6/19/2023	3,951,542	17,262	3,208,244	11,155	28,417
4/20/2023	3,038,487	10,343	2,523,126	12,426	22,769	5/20/2023	3,507,734	18,388	2,878,344	11,442	29,830	6/20/2023	3,970,025	18,483	3,219,151	10,907	29,390
4/21/2023	3,058,229	19,742	2,535,228	12,102	31,844	5/21/2023	3,523,801	16,067	2,889,804	11,460	27,527	6/21/2023	3,981,988	11,963	3,230,126	10,975	22,938
4/22/2023	3,077,382	19,153	2,547,271	12,043	31,196	5/22/2023	3,539,849	16,048	2,901,252	11,448	27,496	6/22/2023	3,997,614	15,626	3,241,548	11,422	27,048
4/23/2023	3,095,147	17,765	2,559,647	12,376	30,141	5/23/2023	3,554,324	14,475	2,912,566	11,314	25,789	6/23/2023	4,011,990	14,376	3,252,680	11,132	25,508
4/24/2023	3,113,692	18,545	2,571,814	12,167	30,712	5/24/2023	3,569,304	14,980	2,923,975	11,409	26,389	6/24/2023	4,025,202	13,212	3,263,606	10,926	24,138
4/25/2023	3,131,254	17,562	2,584,010	12,196	29,758	5/25/2023	3,580,933	11,629	2,935,430	11,455	23,084	6/25/2023	4,038,172	12,970	3,274,469	10,863	23,833
4/26/2023	3,148,876	17,622	2,595,958	11,948	29,570	5/26/2023	3,589,610	8,677	2,946,761	11,331	20,008	6/26/2023	4,051,669	13,497	3,285,355	10,886	24,383
4/27/2023	3,163,955	15,079	2,608,004	12,046	27,125	5/27/2023	3,604,092	14,482	2,958,034	11,273	25,755	6/27/2023	4,067,116	15,447	3,297,533	12,178	27,625
4/28/2023	3,178,571	14,616	2,619,879	11,875	26,491	5/28/2023	3,622,392	18,300	2,969,434	11,400	29,700	6/28/2023	4,082,562	15,446	3,306,991	9,458	24,904
4/29/2023	3,192,130	13,559	2,631,749	11,870	25,429	5/29/2023	3,641,267	18,875	2,980,587	11,153	30,028	6/29/2023	4,095,454	12,892	3,317,915	10,924	23,816
4/30/2023	3,203,438	11,308	2,643,338	11,589	22,897	5/30/2023	3,657,560	16,293	2,991,604	11,017	27,310	6/30/2023	4,112,387	16,933	3,328,749	10,834	27,767
						5/31/2023	3,670,319	12,759	3,002,838	11,234	23,993						
Total Gallons Pumped for April		**507,291**		**374,261**	**881,552**	**Total Gallons Pumped for May**		**466,881**		**359,500**	**826,381**	**Total Gallons Pumped for June**		**442,068**		**325,911**	**767,979**
Daily gallons pumped		16,910		12,475	29,385	Daily gallons pumped		15,061		11,597	26,657	Daily gallons pumped		14,736		10,864	25,599
Hourly gallons pumped		705		520	1,224	Hourly gallons pumped		628		483	1.111	Hourly gallons pumped		614		453	1.067
GPM for April		11.74		8.66	20.41	GPM for May		10.46		8.05	18.51	GPM for June		10.23		7.54	17.78
												Total for the Quarter					**2,475,912**

Table 1
Pinyon Plain Mine Daily Volume of Water Pumped from Underground Mining Areas During 2023

Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)
Third Quarter 2023																	
July 2023						**August 2023**						**September 2023**					
7/1/2023	4,129,306	16,919	3,339,520	10,771	27,690	8/1/2023	4,556,600	12,491	3,678,784	11,108	23,599	9/1/2023	4,995,457	11,242	10,700	10,700	21,942
7/2/2023	4,142,516	13,210	3,350,520	11,000	24,210	8/2/2023	4,568,547	11,947	3,689,596	10,812	22,759	9/2/2023	5,015,757	20,300	11,000	11,000	31,300
7/3/2023	4,156,652	14,136	3,361,368	10,848	24,984	8/3/2023	4,584,897	16,350	3,700,308	10,712	27,062	9/3/2023	5,042,269	26,512	12,000	12,000	38,512
7/4/2023	4,169,723	13,071	3,372,126	10,758	23,829	8/4/2023	4,598,892	13,995	3,711,028	10,720	24,715	9/4/2023	5,064,597	22,328	8,000	8,000	30,328
7/5/2023	4,182,299	12,576	3,382,831	10,705	23,281	8/5/2023	4,613,205	14,313	3,721,857	10,829	25,142	9/5/2023	5,087,193	22,596	9,000	9,000	31,596
7/6/2023	4,199,394	17,095	3,393,626	10,795	27,890	8/6/2023	4,626,378	13,173	3,732,668	10,811	23,984	9/6/2023	5,110,176	22,983	8,000	8,000	30,983
7/7/2023	4,216,363	16,969	3,404,459	10,833	27,802	8/7/2023	4,640,251	13,873	3,743,464	10,796	24,669	9/7/2023	5,131,111	20,935	7,000	7,000	27,935
7/8/2023	4,229,498	13,135	3,415,176	10,717	23,852	8/8/2023	4,652,442	12,191	3,754,318	10,854	23.045	9/8/2023	5,153,306	22,195	8,000	8,000	30,195
7/9/2023	4,243,801	14,303	3,426,075	10,899	25,202	8/9/2023	4,665,824	13,382	3,764,967	10,649	24,031	9/9/2023	5,175,367	22,061	10,000	10,000	32,061
7/10/2023	4,253,034	9,233	3,436,799	10,724	19,957	8/10/2023	4,680,031	14,207	3,775,912	10,945	25,152	9/10/2023	5,194,679	19,312	10,700	10,700	30,012
7/11/2023	4,267,286	14,252	3,447,614	10,815	25,067	8/11/2023	4,693,792	13,761	3,786,697	10,785	24,546	9/11/2023	5,211,536	16,857	10,480	10,480	27,337
7/12/2023	4,281,092	13,806	3,458,334	10,720	24,526	8/12/2023	4,702,248	8,456	3,795,988	9,291	17,747	9/12/2023	5,232,347	20,811	9,480	9,480	30,291
7/13/2023	4,299,542	18,450	3,469,190	10,856	29,306	8/13/2023	4,720,122	17,874	10,700	10,700	28,574	9/13/2023	5,254,822	22,475	11,480	11,480	33,955
7/14/2023	4,314,257	14,715	3,479,997	10,807	25,522	8/14/2023	4,732,303	12,181	12,181	12,181	24,362	9/14/2023	5,275,961	21,139	9,480	9,480	30,619
7/15/2023	4,327,095	12,838	3,491,049	11,052	23,890	8/15/2023	4,751,972	19,669	19,669	19,669	39,338	9/15/2023	5,294,778	18,817	16,480	16,480	35,297
7/16/2023	4,339,933	12,838	3,502,101	11,052	23,890	8/16/2023	4,766,815	14,843	10,700	10,700	25,543	9/16/2023	5,311,742	16,964	16,480	16,480	33,444
7/17/2023	4,352,771	12,838	3,513,153	11,052	23,890	8/17/2023	4,780,841	14,026	9,000	9,000	23,026	9/17/2023	5,324,936	13,194	9,480	9,480	22,674
7/18/2023	4,365,609	12,838	3,524,205	11,052	23,890	8/18/2023	4,793,102	12,261	8,000	8,000	20,261	9/18/2023	5,338,125	13,189	10,480	10,480	23,669
7/19/2023	4,378,447	12,838	3,535,257	11,052	23,890	8/19/2023	4,811,962	18,860	14,000	14,000	32,860	9/19/2023	5,354,166	16,041	13,480	13,480	29,521
7/20/2023	4,391,285	12,838	3,546,309	11,052	23,890	8/20/2023	4,827,639	15.677	8,000	8,000	23,677	9/20/2023	5,382,198	28,032	10,480	10,480	38,512
7/21/2023	4,404,123	12,838	3,557,361	11,052	23,890	8/21/2023	4,841,361	13,722	10,000	10,000	23,722	9/21/2023	5,405,148	22,950	10,480	10,480	33,430
7/22/2023	4,416,961	12,838	3,568,413	11,052	23,890	8/22/2023	4,854,820	13,459	14,000	14,000	27,459	9/22/2023	5,434,858	29,710	440,232	12,480	42,190
7/23/2023	4,429,799	12,838	3,579,465	11,052	23,890	8/23/2023	4,869,071	14,251	12,000	12,000	26,251	9/23/2023	5,458,256	23,398	447,843	7,611	31,009
7/24/2023	4,445,813	16,014	3,589,815	10,350	26,364	8/24/2023	4,882,644	13,573	10,000	10,000	23,573	9/24/2023	5,471,940	13,684	458,323	10,480	24,164
7/25/2023	4,461,889	16,076	3,600,864	11,049	27,125	8/25/2023	4,893,572	10,928	11,000	11,000	21,928	9/25/2023	5,494,054	22,114	469,003	10,680	32,794
7/26/2023	4,477,337	15,448	3,611,699	10,835	26,283	8/26/2023	4,899,418	5,846	8,000	8,000	13,846	9/26/2023	5,505,594	11,540	479,483	10,480	22,020
7/27/2023	4,489,398	12,061	3,622,527	10,828	22,889	8/27/2023	4,918,152	18,734	7,000	7,000	25,734	9/27/2023	5,523,549	17,955	490,963	11,480	29,435
7/28/2023	4,502,664	13,266	3,633,614	11,087	24,353	8/28/2023	4,940,956	22,804	9,000	9,000	31,804	9/28/2023	5,546,473	22,924	501,443	10,480	33,404
7/29/2023	4,514,721	12,057	3,644,819	11,205	23,262	8/29/2023	4,955,457	14,501	9,000	9,000	23,501	9/29/2023	5,563,370	16,897	510,923	9,480	26,377
7/30/2023	4,527,765	13,044	3,656,233	11,414	24,458	8/30/2023	4,971,656	16,199	10,000	10,000	26,199	9/30/2023	5,586,406	23,036	521,217	10,294	33,330
7/31/2023	4,544,109	16,344	3,667,676	11,443	27,787	8/31/2023	4,984,215	12,559	10,700	10,700	23,259						
Total Gallons Pumped for July		**431,722**		**338,927**	**770,649**	**Total Gallons Pumped for August**		**440,106**		**331,262**	**771,368**	**Total Gallons Pumped for September**		**602,191**		**316,145**	**918,336**
Daily gallons pumped		13,927		10,933	24,860	Daily gallons pumped		14,197		10,686	24,883	Daily gallons pumped		20,073		10,538	30,611
Hourly gallons pumped		580		456	1,036	Hourly gallons pumped		592		445	1,037	Hourly gallons pumped		836		439	1.275
GPM for July		9.67		7.59	17.26	GPM for August		9.86		7.42	17.28	GPM for September		13.94		7.32	21.26
												Total for the Quarter					**2,460,353**

8/12/2022 - 9/21/2022

Totals are based on tank rise in the tank that is filled by the ring water. Flow meters are working, but not accurately totalizing at the time. Daily volumes are actuals based on amount of water stored from the ring.

Table 1

Pinyon Plain Mine Daily Volume of Water Pumped from Underground Mining Areas During 2023

Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)	Date	Sump Meter Reading	Gallons Pumped (GA/D)	Ring Meter Reading	Gallons Pumped (GA/D)	Total Gallons Pumped (GA/D)
Fourth Quarter 2023																	
October 2023						**November 2023**						**December 2023**					
10/1/2023	5,604,532	18,126	531,238	10,021	28,147	11/1/2023	6,133,339	6,860	271,544	10,667	17,527	12/1/2023	6,548,986	11,932	585,085	11,083	23,015
10/2/2023	5,619,533	15,001	541,936	10,698	25,699	11/2/2023	6,157,477	24,138	280,111	8,567	32,705	12/2/2023	6,560,023	11,037	3,694	3,694	14,731
10/3/2023	5,636,556	17,023	551,875	9,939	26,962	11/3/2023	6,169,998	12,521	291,487	11,376	23,897	12/3/2023	11,023	11,023	14,374	10,680	21,703
10/4/2023	5,653,979	17,423	561,990	10,115	27,538	11/4/2023	6,178,478	8,480	302,555	11,068	19,548	12/4/2023	23,868	12,845	24,855	10,481	23,326
10/5/2023	5,671,835	17,856	573,011	11,021	28,877	11/5/2023	6,192,378	13,900	314,717	12,162	26,062	12/5/2023	40,528	16,660	54,280	29,425	46,085
10/6/2023	5,688,068	16,233	583,110	10,099	26,332	11/6/2023	6,199,107	6,729	323,687	8,970	15,699	12/6/2023	47,161	6,633	66,056	11,776	18,409
10/7/2023	5,713,287	25,219	8,154	8,154	33,373	11/7/2023	6,216,874	17,767	332,977	9,290	27,057	12/7/2023	57,242	10,081	78,604	12,548	22,629
10/8/2023	5,732,292	19,005	19,177	11,023	30,028	11/8/2023	6,234,260	17,386	345,230	12,253	29,639	12/8/2023	67,404	10,162	96,928	18,324	28,486
10/9/2023	5,752,450	20,158	29,857	10,680	30,838	11/9/2023	6,246,733	12,473	357,580	12,350	24,823	12/9/2023	77,659	10,255	106,231	9,303	19,558
10/10/2023	5,768,454	16,004	40,751	10,894	26,898	11/10/2023	6,266,337	19,604	366,881	9,301	28,905	12/10/2023	87,390	9,731	112,246	6,015	15,746
10/11/2023	5,784,455	16,001	52,231	11,480	27,481	11/11/2023	6,280,026	13,689	375,800	8,919	22,608	12/11/2023	97,494	10,104	125,467	13,221	23,325
10/12/2023	5,795,151	10,696	63,337	11,106	21,802	11/12/2023	6,296,540	16,514	386,875	11,075	27,589	12/12/2023	107,287	9,793	153,329	27,862	37,655
10/13/2023	5,813,266	18,115	73,819	10,482	28,597	11/13/2023	6,309,244	12,704	399,114	12,239	24,943	12/13/2023	117,296	10,009	172,897	19,568	29,577
10/14/2023	5,839,283	26,017	86,444	12,625	38,642	11/14/2023	6,324,444	15,200	409,668	10,554	25,754	12/14/2023	127,447	10,151	188,307	15,410	25,561
10/15/2023	5,860,167	20,884	93,591	7,147	28,031	11/15/2023	6,336,875	12,431	417,669	8,001	20,432	12/15/2023	137,396	9,949	203,434	15,127	25,076
10/16/2023	5,881,999	21,832	103,990	10,399	32,231	11/16/2023	6,350,151	13,276	428,656	10,987	24,263	12/16/2023	4,004	4,004	2,696	2,696	6,700
10/17/2023	5,899,951	17,952	114,389	10,399	28,351	11/17/2023	6,363,333	13,182	438,695	10,039	23,221	12/17/2023	16,996	12,992	12,714	10,018	23,010
10/18/2023	5,920,138	20,187	124,788	10,399	30,586	11/18/2023	6,377,862	14,529	448,072	9,377	23,906	12/18/2023	34,226	17,230	22,983	10,269	27,499
10/19/2023	5,940,019	19,881	135,187	10,399	30,280	11/19/2023	6,390,623	12,761	458,980	10,908	23,669	12/19/2023	41,722	7,496	33,256	10,273	17,769
10/20/2023	5,951,003	10,984	145,586	10,399	21,383	11/20/2023	6,399,581	8,958	468,658	9,678	18,636	12/20/2023	52,389	10,667	43,788	10,532	21,199
10/21/2023	5,964,587	13,584	159,237	13,651	27,235	11/21/2023	6,410,009	10,428	479,555	10,897	21,325	12/21/2023	70,496	18,107	52,916	9,128	27,235
10/22/2023	5,984,172	19,585	168,878	9,641	29,226	11/22/2023	6,426,059	16,050	489,724	10,169	26,219	12/22/2023	94,621	24,125	61,925	9,009	33,134
10/23/2023	6,007,567	23,395	181,632	12,754	36,149	11/23/2023	6,442,187	16,128	498,855	9,131	25,259	12/23/2023	115,242	20,621	72,226	10,301	30,922
10/24/2023	6,024,277	16,710	192,469	10,837	27,547	11/24/2023	6,458,304	16,117	510,927	12,072	28,189	12/24/2023	131,658	16,416	82,361	10,135	26,551
10/25/2023	6,045,555	21,278	202,999	12,033	33,311	11/25/2023	6,467,259	8,955	522,025	11,098	20,053	12/25/2023	147,203	15,545	92,547	10,186	25,731
10/26/2023	6,065,558	20,003	215,559	12,560	32,563	11/26/2023	6,481,125	13,866	530,854	8,829	22,695	12/26/2023	157,675	10,472	105,603	13,056	23,528
10/27/2023	6,079,999	14,441	223,277	7,718	22,159	11/27/2023	6,497,514	16,389	541,668	10,814	27,203	12/27/2023	157,675	0	115,705	10,102	10,102
10/28/2023	6,094,474	14,475	230,001	6,724	21,199	11/28/2023	6,510,025	12,511	552,385	10,717	23,228	12/28/2023	175,144	17,469	122,993	7,288	24,757
10/29/2023	6,109,888	15,414	239,977	9,976	25,390	11/29/2023	6,523,485	13,460	563,982	11,597	25,057	12/29/2023	203,950	28,806	135,930	12,937	41,743
10/30/2023	6,115,881	5,993	251,002	11,025	17,018	11/30/2023	6,537,054	13,569	574,002	10,020	23,589	12/30/2023	222,644	18,694	142,990	7,060	25,754
10/31/2023	6,126,479	10,598	260,877	9,875	20,473							12/31/2023	237,855	15,211	153,102	10,112	25,323
Total Gallons Pumped for Oct.		**540,073**		**324,273**	**864,346**	**Total Gallons Pumped for Nov.**		**410,575**		**313,125**	**723,700**	**Total Gallons Pumped for Dec.**		**398,220**		**367,619**	**765,839**
Daily gallons pumped		17,422		10,460	27,882	Daily gallons pumped		13,686		10,438	24,123	Daily gallons pumped		12,846		11,859	24,704
Hourly gallons pumped		726		436	1,162	Hourly gallons pumped		570		435	1,005	Hourly gallons pumped		535		494	1,029
GPM for October		12.10		7.26	19.36	GPM for November		9.50		7.25	16.75	GPM for December		8.92		8.24	17.16
												Total for the Quarter					**2,353,885**
												Total for the Year					**9,368,926**
												GPM for the Year		**10.3**		**7.6**	**17.9**

*reset sump and Ring flow meter on 10/07/2023
*reset ring water flow meter on 12/5/23
*reset sump water flow meter 12/3/23
*reset sump and Ring flow meter on 12/15/2023
* Transducer was changed out on 12/16/2023

Table 2

Pinyon Plain Mine Non-Stormwater Impoundment Sample Summary

Analytes	Units	Q1 2023	Q2 2023	Q3 2023	Q4 2023
Metals					
Antimony (Total)	mg/L	<0.00430	0.00511	0.00485	0.0680
Arsenic (Total)	mg/L	0.256	0.404	0.372	8.12
Barium (Total)	mg/L	0.0379	0.172	0.0640	16.8
Beryllium (Total)	mg/L	<0.000330	<0.000330	<0.000330	0.000465J
Cadmium (Total)	mg/L	<0.000479	0.000702	<0.000479	0.0176
Chromium (Total)	mg/L	0.00160	0.00231	<0.00140	0.0228
Copper (Total)	mg/L	0.0615	0.0907	0.0633	0.620
Iron (Total)	mg/L	4.03	7.19	2.74	32.5
Lead (Total)	mg/L	0.0148	0.0470	0.0382	3.65
Manganese (Total)	mg/L	0.0720	0.0654	0.0762	0.0708
Mercury (Total)	mg/L	<0.0001	<0.0001	<0.0001	0.000361
Nickel (Total)	mg/L	0.378	0.465	0.685	6.78
Selenium (Total)	mg/L	<0.00735	<0.00735	<0.00735	0.0121
Thallium (Total)	mg/L	0.00687	0.00970	0.00735	0.0256
Uranium (Total)	mg/L	0.0841	0.163	0.0574	0.169
Vanadium (Total)	mg/L	0.00109J	0.00105	0.00104	0.0044J
Zinc (Total)	mg/L	0.341	0.536	0.719	9.13
Radionuclides					
Gross Alpha (Total)	pCi/L	186 (±10.5)	384 (±16.8)	212 (±18.8)	443 (±20.5)
Adjusted Gross Alpha (Total)	pCi/L	90.4	202.8	151	281
Radium 226 (Total)	pCi/L	9.57 (±1.59)	7.21 (±0.912)	10.7 (±1.23)	26.6 (±2.0)
Radium 228 (Total)	pCi/L	<0.0869 (±0.257)	2.06 (±0.393)	<1.02 (±0.230)	2.63 (±0.335)
Uranium 234 (Total)	pCi/L	70.3 (±3.62)	122 (±5.08)	40.7 (±2.99)	106 (±5.31)
Uranium 235 (Total)	pCi/L	2.54 (±0.698)	2.02 (±0.658)	2.14 (±0.690)	4.6 (±1.11)
Uranium 238 (Total)	pCi/L	25.5 (±2.17)	59.2 (±3.54)	19.7 (±2.08)	56.2 (±3.86)
Major Ions					
Alkalinity (Total)	mg/L	<8.45	<8.45	<8.45	<8.45
Calcium	mg/L	105	116	130	131
Fluoride	mg/L	0.214	0.201	0.125	0.105J
Magnesium	mg/L	59.1	65.5	70.7	68.2
Nitrate-Nitrite	mg/L	8.80	4.41	0.702	2.01
Potassium	mg/L	6.36	4.60	3.74	9.51
Sodium	mg/L	27.1	35.1	31.7	33.8
Sulfate	mg/L	338	387	488	359
Physical Properties					
Conductivity	umhos/cm	1120	1160	1210	1390
pH (field)	S.U.	7.53	7.19	7.01	7.11
TDS	mg/L	717	792	955	876

< - Indicates that the analyte was not dectected above the reporting limit.

( ) - Indicates the error term for the radiological result.

J - Analyte concentration detected at a value between the MDL and PQL. The associated value is an estimated quantity.

NA - Not Analyzed

** New lab reported as Carbonate Alkalinity

*Pursuant to negotiations with ADEQ regarding the individual APP, EFRI agreed to begin implementing the new sampling requirements for the sump prior to the final approval and issuance of the individual APP Permit. These samples were analyzed as total recoverable pursuant to that agreement.

Table 3

Pinyon Plain Quarterly Groundwater Elevations

	MW-01		MW-02		MW-03	
Quarter	DTW (from Surface)	GW Elevation	DTW (from Surface)	GW Elevation	DTW (from Surface)	GW Elevation
Q1 2023	1000.0	5509.541	990.2	5523.194	956.1	5545.93
Q2 2023	996.3	5513.241	989.3	5524.094	952.8	5549.23
Q3 2023	997.3	5512.241	990.0	5523.394	954.8	5547.25
Q4 2023	1002.0	5507.541	991.0	5522.394	956.3	5545.73

Pinyon Plain Monitor Well Elevation (ft.)

MW-01	MW-02	MW-03
6509.541	6513.394	6502.03

Table 4

Pinyon Plain Mine Groundwater Quality Sample Summary

Analytes	Units	Q1 2023	Q2 2023	Q3 2023	Q4 2023
Metals					
Arsenic (Dissolved)	mg/L	<0.0044	<0.00440	0.00465	<0.00440
Uranium (Dissolved)	mg/L	0.0136	0.0136	0.0133	0.0129

ATTACHMENT 1

ANALYTICAL REPORT

March 10, 2023

Energy Fuels Resources

Sample Delivery Group:	L1581929
Samples Received:	02/03/2023
Project Number:	
Description:	PINYON PLAIN SUMP DISCHARGE

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

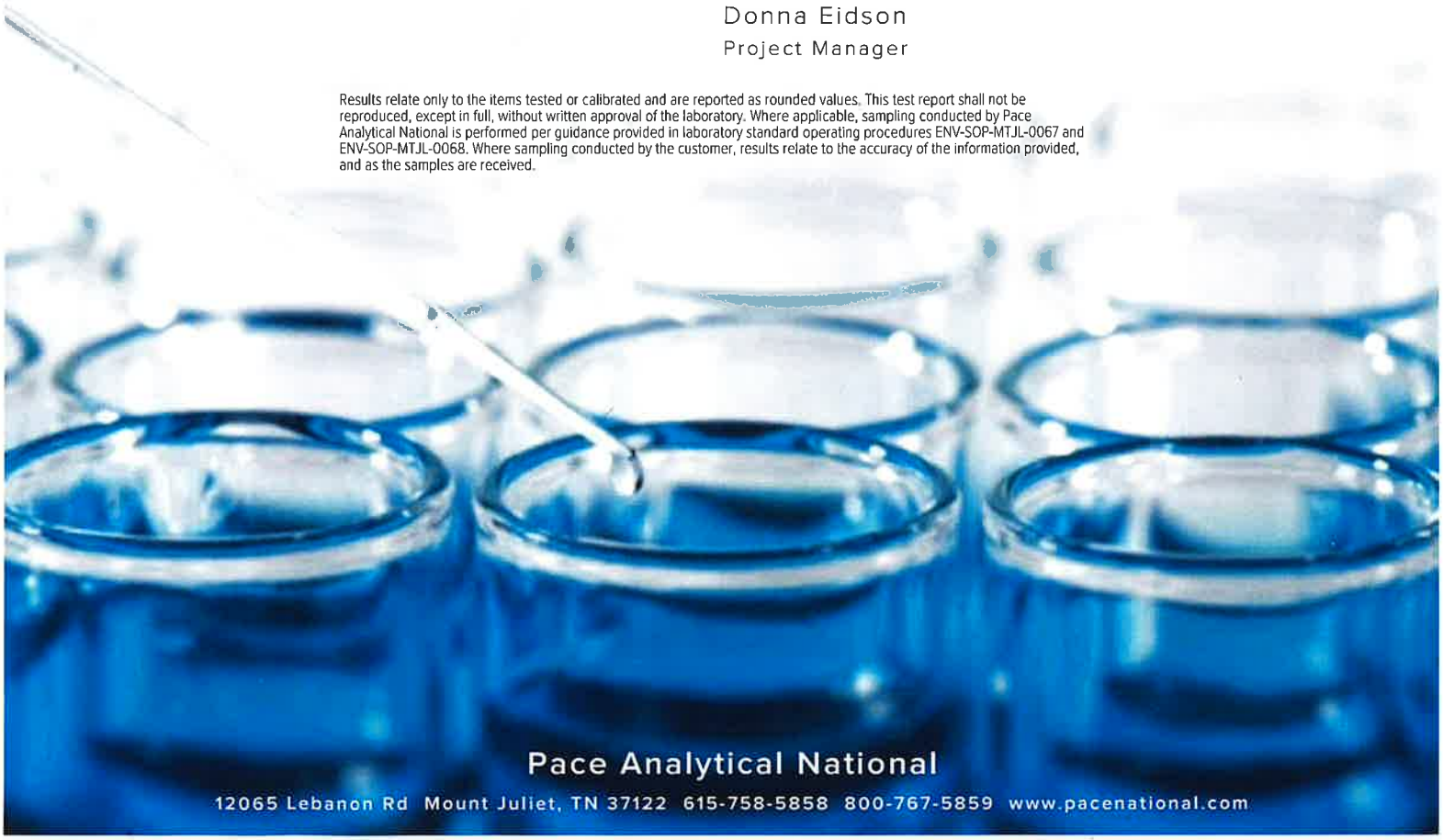


TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP 1470_02022023 L1581929-01 GW

			Collected by	Collected date/time	Received date/time
				02/02/23 14:20	02/03/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2000063	1	02/04/23 10:16	02/04/23 11:02	TDW	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2000611	1	02/06/23 15:07	02/06/23 15:07	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1999883	5	02/03/23 23:07	02/03/23 23:07	JCS	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2000070	1	02/04/23 14:25	02/04/23 14:25	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2000075	1	02/04/23 12:10	02/04/23 12:10	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2000047	1	02/04/23 03:34	02/04/23 03:34	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2000047	5	02/04/23 03:50	02/04/23 03:50	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG1999816	1	02/06/23 19:01	02/07/23 10:01	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2001114	1	02/07/23 01:14	02/07/23 10:03	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1999940	1	02/04/23 04:58	02/05/23 12:46	SJM	Mt. Juliet, TN

SUMP 1470_02022023 L1581929-02 Non-Potable Water

			Collected by	Collected date/time	Received date/time
				02/02/23 14:20	02/03/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2009838	1	02/21/23 11:54	02/24/23 23:33	SWM	Mt. Juliet, TN
Radiochemistry by Method 903.0/9315	WG1999636	1	02/06/23 12:34	02/10/23 16:52	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2007537	1	02/23/23 18:23	03/03/23 14:13	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2009838	1	02/21/23 11:54	03/01/23 19:50	SWM	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2008455	1	02/24/23 21:04	03/01/23 19:50	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	717	J4	13.3	1	02/04/2023 11:02	WG2000063

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Carbonate	U		8.45	20.0	1	02/06/2023 15:07	WG2000611

Sample Narrative:
L1581929-01 WG2000611: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	8.80		0.250	0.500	5	02/03/2023 23:07	WG1999883

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.79	T8	1	02/04/2023 14:25	WG2000070

Sample Narrative:
L1581929-01 WG2000070: 7.79 at 18.9C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1120		10.0	1	02/04/2023 12:10	WG2000075

Sample Narrative:
L1581929-01 WG2000075: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.214		0.0640	0.150	1	02/04/2023 03:34	WG2000047
Sulfate	338		2.97	25.0	5	02/04/2023 03:50	WG2000047

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	02/07/2023 10:01	WG1999816

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony	U		0.00430	0.0100	1	02/07/2023 10:03	WG2001114
Arsenic	0.256		0.00440	0.0100	1	02/07/2023 10:03	WG2001114
Barium	0.0379		0.000736	0.00500	1	02/07/2023 10:03	WG2001114
Beryllium	U		0.000330	0.00200	1	02/07/2023 10:03	WG2001114
Cadmium	U		0.000479	0.00200	1	02/07/2023 10:03	WG2001114
Calcium	105	V	0.0793	1.00	1	02/07/2023 10:03	WG2001114
Chromium	0.00160	J	0.00140	0.0100	1	02/07/2023 10:03	WG2001114

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Copper	0.0615		0.00368	0.0100	1	02/07/2023 10:03	WG2001114
Iron	4.03		0.0180	0.100	1	02/07/2023 10:03	WG2001114
Lead	0.0148		0.00299	0.00600	1	02/07/2023 10:03	WG2001114
Magnesium	59.1		0.0853	1.00	1	02/07/2023 10:03	WG2001114
Manganese	0.0720		0.000934	0.0100	1	02/07/2023 10:03	WG2001114
Nickel	0.378		0.00161	0.0100	1	02/07/2023 10:03	WG2001114
Potassium	6.36		0.261	2.00	1	02/07/2023 10:03	WG2001114
Selenium	U		0.00735	0.0100	1	02/07/2023 10:03	WG2001114
Sodium	27.1		0.504	3.00	1	02/07/2023 10:03	WG2001114

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Thallium	0.00687		0.000121	0.00200	1	02/05/2023 12:46	WG1999940
Uranium	0.0841		0.0000789	0.00100	1	02/05/2023 12:46	WG1999940
Vanadium	0.00109	J	0.000664	0.00500	1	02/05/2023 12:46	WG1999940
Zinc	0.341		0.00302	0.0250	1	02/05/2023 12:46	WG1999940

Radiochemistry by Method 900

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
GROSS ALPHA	186		10.5	1.56	02/24/2023 23:33	WG2009838

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Radium-226	9.57		1.59	0.482	02/10/2023 16:52	WG1999636
(T) Barium	*97.0*			*30.0-143*	*02/10/2023 16:52*	WG1999636

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0869	U	0.257	0.468	03/03/2023 14:13	WG2007537
(T) Barium	*83.2*			*30.0-143*	*03/03/2023 14:13*	WG2007537
(T) Yttrium	*100*			*30.0-136*	*03/03/2023 14:13*	WG2007537

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Adjusted Gross Alpha	90.4				03/01/2023 19:50	WG2009838

Radiochemistry by Method D3972 U-02

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
URANIUM-234	70.3		3.62	0.602	03/01/2023 19:50	WG2008455
URANIUM-235	2.54		0.698	0.317	03/01/2023 19:50	WG2008455
URANIUM-238	25.5		2.17	0.317	03/01/2023 19:50	WG2008455
(T) URANIUM-232	*67.3*			*30.0-110*	*03/01/2023 19:50*	WG2008455

Method Blank (MB)

(MB) R3887871-1 02/04/23 11:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1581809-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1581809-01 02/04/23 11:02 • (DUP) R3887871-3 02/04/23 11:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	113	96.0	1	16.3	J3	5

L1581929-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1581929-01 02/04/23 11:02 • (DUP) R3887871-4 02/04/23 11:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	717	747	1	4.01		5

Laboratory Control Sample (LCS)

(LCS) R3887871-2 02/04/23 11:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	6580	74.8	77.3-123	J4

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Method Blank (MB)

(MB) R3895127-1 02/23/23 23:54

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
GROSS ALPHA	0.298	J	0.292	0.380

L1582382-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1582382-06 02/24/23 23:33 • (DUP) R3895127-5 02/23/23 23:54

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
GROSS ALPHA	4.98	1.39	0.761	4.95	1.44	0.761	1	0.584	0.0145		20	3

Laboratory Control Sample (LCS)

(LCS) R3895127-2 02/23/23 23:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
GROSS ALPHA	15.0	13.9	92.6	80.0-120	

L1582340-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1582340-02 02/24/23 23:33 • (MS) R3895127-3 02/23/23 23:54 • (MSD) R3895127-4 02/23/23 23:54

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
GROSS ALPHA	15.0	0.576	18.5	15.8	119	102	1	70.0-130			15.5		20

Method Blank (MB)

(MB) R3890149-1 02/10/23 15:21

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	-0.0163	U	0.0450	0.207
(T) Barium	*99.8*		*99.8*	

L1582382-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1582382-05 02/10/23 15:52 • (DUP) R3890149-5 02/10/23 15:52

Analyte	Original Result pCi/l	Original Uncertainty + / - pCi/l	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / - pCi/l	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.244	0.348	0.497	0.213	0.441	0.497	1	13.3	0.0541	J	20	3
(T) Barium	*94.1*			*91.0*	*91.0*							

Laboratory Control Sample (LCS)

(LCS) R3890149-2 02/10/23 15:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.82	96.2	80.0-120	
(T) Barium			*99.7*		

L1581984-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1581984-01 02/10/23 16:52 • (MS) R3890149-3 02/10/23 15:21 • (MSD) R3890149-4 02/10/23 15:21

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0986	20.0	18.3	99.4	90.9	1	75.0-125			8.94		20
(T) Barium		*101*			*99.9*	*99.6*							

Method Blank (MB)

(MB) R3897675-1 03/03/23 14:13

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.0422	J	0.216	0.191
(T) Barium	*76.2*		*76.2*	
(T) Yttrium	*106*		*106*	

L1580629-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1580629-01 03/03/23 14:13 • (DUP) R3897675-5 03/03/23 14:13

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0201	0.524	0.950	1.00	0.453	0.950	1	200	1.47		20	3
(T) Barium	*78.9*			*85.6*	*85.6*							
(T) Yttrium	*119*			*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R3897675-2 03/03/23 14:13

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.27	105	80.0-120	
(T) Barium			*72.0*		
(T) Yttrium			*95.3*		

L1580251-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1580251-01 03/03/23 14:13 • (MS) R3897675-3 03/03/23 14:13 • (MSD) R3897675-4 03/03/23 14:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.251	3.25	7.66	30.0	74.1	1	70.0-130	J6	J3	80.8		20
(T) Barium		*74.2*			*78.8*	*78.7*							
(T) Yttrium		*91.3*			*101*	*113*							

QUALITY CONTROL SUMMARY

L1581929-02

Method Blank (MB)

(MB) R3896806-1 03/01/23 19:50

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
URANIUM-234	0.0681	J	0.110	0.161
URANIUM-235	-0.00245	U	0.0377	0.0899
URANIUM-238	0.0681	J	0.0800	0.110
(T) URANIUM-232	*61.5*		*61.5*	

L1584069-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1584069-03 03/01/23 19:50 • (DUP) R3896806-5 03/01/23 19:52

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
URANIUM-234	2.48	0.712	0.537	1.83	0.627	0.537	1	30.1	0.685		20	3
URANIUM-235	0.204	0.222	0.283	0.290	0.274	0.283	1	34.6	0.242	J	20	3
URANIUM-238	1.37	0.569	0.537	1.57	0.558	0.537	1	13.7	0.252		20	3
(T) URANIUM-232	*77.4*			*80.0*	*80.0*							

Laboratory Control Sample (LCS)

(LCS) R3896806-2 03/01/23 19:50

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
URANIUM-234	10.1	9.16	90.7	80.0-120	
URANIUM-238	9.80	8.88	90.6	80.0-120	
(T) URANIUM-232			*63.6*		

L1582887-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1582887-01 03/01/23 19:50 • (MS) R3896806-3 03/01/23 19:50 • (MSD) R3896806-4 03/01/23 19:50

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
URANIUM-234	40.2	0.145	49.5	41.7	123	103	1	75.0-125			17.2		20
URANIUM-238	39.2	0.241	48.6	42.9	123	109	1	75.0-125			12.5		20
(T) URANIUM-232		*70.5*			*62.0*	*68.4*							

Method Blank (MB)

(MB) R3887929-2 02/06/23 12:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1581143-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1581143-01 02/06/23 12:54 • (DUP) R3887929-4 02/06/23 12:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

L1581910-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1581910-01 02/06/23 14:23 • (DUP) R3887929-6 02/06/23 14:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Method Blank (MB)

(MB) R3887463-1 02/03/23 22:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1581873-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1581873-02 02/03/23 22:44 • (DUP) R3887463-9 02/03/23 22:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0931	0.0916	1	1.62	J	20

L1581671-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1581671-09 02/03/23 22:59 • (DUP) R3887463-11 02/03/23 23:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	4.52	4.70	5	3.80		20

Laboratory Control Sample (LCS)

(LCS) R3887463-2 02/03/23 22:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.55	102	90.0-110	

L1581873-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1581873-02 02/03/23 22:44 • (MS) R3887463-10 02/03/23 22:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.0931	2.70	104	1	90.0-110	

L1581671-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1581671-09 02/03/23 22:59 • (MS) R3887463-12 02/03/23 23:01 • (MSD) R3887463-13 02/03/23 23:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	12.5	4.52	17.2	16.8	101	98.2	5	90.0-110			2.35	20

L1582126-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1582126-09 02/04/23 14:25 • (DUP) R3887544-2 02/04/23 14:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.49	6.49	1	0.000		1

Sample Narrative:
OS: 6.49 at 19C
DUP: 6.49 at 19.1C

L1582191-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1582191-01 02/04/23 14:25 • (DUP) R3887544-3 02/04/23 14:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.02	7.02	1	0.000		1

Sample Narrative:
OS: 7.02 at 20.8C
DUP: 7.02 at 21C

Laboratory Control Sample (LCS)

(LCS) R3887544-1 02/04/23 14:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10 at 19.2C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3887530-1 02/04/23 12:10

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1581762-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1581762-01 02/04/23 12:10 • (DUP) R3887530-3 02/04/23 12:10

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3887530-2 02/04/23 12:10

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1140	102	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3887597-1 02/04/23 03:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1582126-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1582126-01 02/04/23 04:54 • (DUP) R3887597-3 02/04/23 05:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1582142-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1582142-03 02/04/23 08:21 • (DUP) R3887597-7 02/04/23 08:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.304	0.305	1	0.361		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3887597-2 02/04/23 03:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.63	108	80.0-120	
Sulfate	40.0	42.5	106	80.0-120	

L1582126-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1582126-01 02/04/23 04:54 • (MS) R3887597-4 02/04/23 05:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	U	2.78	55.5	1	80.0-120	J6
Sulfate	50.0	U	49.1	98.3	1	80.0-120	

L1582126-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1582126-06 02/04/23 07:17 • (MS) R3887597-5 02/04/23 07:33 • (MSD) R3887597-6 02/04/23 07:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	0.196	5.01	5.07	96.3	97.6	1	80.0-120			1.28	15
Sulfate	50.0	19.5	66.1	66.1	93.1	93.3	1	80.0-120			0.116	15

Method Blank (MB)

(MB) R3888134-1 02/07/23 09:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3888134-2 02/07/23 09:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00312	104	80.0-120	

L1581856-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1581856-01 02/07/23 09:35 • (MS) R3888134-3 02/07/23 09:37 • (MSD) R3888134-4 02/07/23 09:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00318	0.00321	106	107	1	75.0-125			0.939	20

Method Blank (MB)

(MB) R3888254-1 02/07/23 09:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00430	0.0100
Arsenic	0.00518	J	0.00440	0.0100
Barium	U		0.000736	0.00500
Beryllium	U		0.000330	0.00200
Cadmium	U		0.000479	0.00200
Calcium	U		0.0793	1.00
Chromium	U		0.00140	0.0100
Copper	U		0.00368	0.0100
Iron	U		0.0180	0.100
Lead	U		0.00299	0.00600
Magnesium	U		0.0853	1.00
Manganese	U		0.000934	0.0100
Nickel	U		0.00161	0.0100
Potassium	U		0.261	2.00
Selenium	U		0.00735	0.0100
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3888254-2 02/07/23 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	1.00	0.951	95.1	80.0-120	
Arsenic	1.00	0.923	92.3	80.0-120	
Barium	1.00	0.993	99.3	80.0-120	
Beryllium	1.00	0.966	96.6	80.0-120	
Cadmium	1.00	0.953	95.3	80.0-120	
Calcium	10.0	9.90	99.0	80.0-120	
Chromium	1.00	0.938	93.8	80.0-120	
Copper	1.00	0.973	97.3	80.0-120	
Iron	10.0	9.71	97.1	80.0-120	
Lead	1.00	0.954	95.4	80.0-120	
Magnesium	10.0	9.27	92.7	80.0-120	
Manganese	1.00	0.901	90.1	80.0-120	
Nickel	1.00	0.954	95.4	80.0-120	
Potassium	10.0	9.28	92.8	80.0-120	
Selenium	1.00	0.923	92.3	80.0-120	
Sodium	10.0	9.58	95.8	80.0-120	

L1581929-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1581929-01 02/07/23 10:03 • (MS) R3888254-4 02/07/23 10:08 • (MSD) R3888254-5 02/07/23 10:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	1.00	U	0.994	0.968	99.4	96.8	1	75.0-125			2.72	20
Arsenic	1.00	0.256	1.22	1.19	96.3	93.8	1	75.0-125			2.07	20
Barium	1.00	0.0379	1.03	1.01	99.3	96.9	1	75.0-125			2.30	20
Beryllium	1.00	U	0.963	0.931	96.3	93.1	1	75.0-125			3.35	20
Cadmium	1.00	U	0.987	0.962	98.7	96.2	1	75.0-125			2.52	20
Calcium	10.0	105	112	111	72.6	64.8	1	75.0-125	V	V	0.699	20
Chromium	1.00	0.00160	0.937	0.907	93.6	90.5	1	75.0-125			3.31	20
Copper	1.00	0.0615	1.07	1.03	100	96.9	1	75.0-125			3.31	20
Iron	10.0	4.03	13.6	13.3	95.8	93.2	1	75.0-125			1.94	20
Lead	1.00	0.0148	0.988	0.957	97.4	94.2	1	75.0-125			3.27	20
Magnesium	10.0	59.1	67.3	66.8	82.0	76.7	1	75.0-125			0.800	20
Manganese	1.00	0.0720	0.967	0.939	89.5	86.7	1	75.0-125			2.92	20
Nickel	1.00	0.378	1.34	1.31	95.8	92.9	1	75.0-125			2.21	20
Potassium	10.0	6.36	15.7	15.4	93.2	90.7	1	75.0-125			1.58	20
Selenium	1.00	U	0.979	0.957	97.9	95.7	1	75.0-125			2.25	20
Sodium	10.0	27.1	35.7	35.4	85.9	83.2	1	75.0-125			0.744	20

Method Blank (MB)

(MB) R3887627-1 02/05/23 11:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Thallium	U		0.000121	0.00200
Uranium	U		0.0000789	0.00100
Vanadium	U		0.000664	0.00500
Zinc	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3887627-2 02/05/23 11:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Thallium	0.0500	0.0472	94.5	80.0-120	
Uranium	0.0500	0.0482	96.3	80.0-120	
Vanadium	0.0500	0.0487	97.4	80.0-120	
Zinc	0.0500	0.0454	90.8	80.0-120	

L1581833-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1581833-01 02/05/23 14:04 • (MS) R3887628-5 02/05/23 14:14 • (MSD) R3887628-6 02/05/23 14:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Zinc	2.25	U	2.08	0.0476	92.4	95.2	45	75.0-125		J3	191	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
U	Below Detectable Limits: Indicates that the analyte was not detected.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

" Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Company Name/Address:
Energy Fuels Resources
3549 South Cheryl Drive
Flagstaff, AZ 86005

Billing Information:
Accounts Payable
3549 South Cheryl Drive
Suite 600
Lakewood, CO 80228

Pres Chk

Report to: **Kathy Weinel**

Email To: **KWeinel@energyfuels.com**

Project Description:

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project # **ENEFUELCO**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00122017

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgement and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 458929
H106

Acctnum: **ENEFUELCO**
Template: **T215492**
Prelogin: **P948242**
PM: **732 - Donna Eidson**
PB: 02/21/22 MW
Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKCA 125mlHDPE-NoPres	FLUORIDE,SULFATE 125mlHDPE-NoPres	GROSS ALPHA 500mlHDPE-Add HNO3	NO2NO3 250mlHDPE-H2SO4	PH 125mlHDPE-NoPres	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
SUMP 1470_02022023		GW	1470	2/3/23	1429	6	X	X		X	X			X	X		01
		GW				6	X	X		X	X			X	X		
		GW				6	X	X		X	X			X	X		
		GW				6	X	X		X	X			X	X		
		GW				6	X	X		X	X			X	X		
		NPW				4			X			X	X				
		NPW				4			X			X	X				
		NPW				4			X			X	X				
		NPW				4			X			X	X				
		NPW				4			X			X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks: Sump Discharge

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking # 1Z 18E 99F 01 9974 998

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2/2/23	14:45	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: NSA °C 0.2+0.2 Bottles Received: 7

Date: 2-3-23 Time: 9:36

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

May 12, 2023

Energy Fuels Resources

Sample Delivery Group:	L1611210
Samples Received:	05/02/2023
Project Number:	
Description:	PINYON PLAIN SUMP DISCHARGE

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

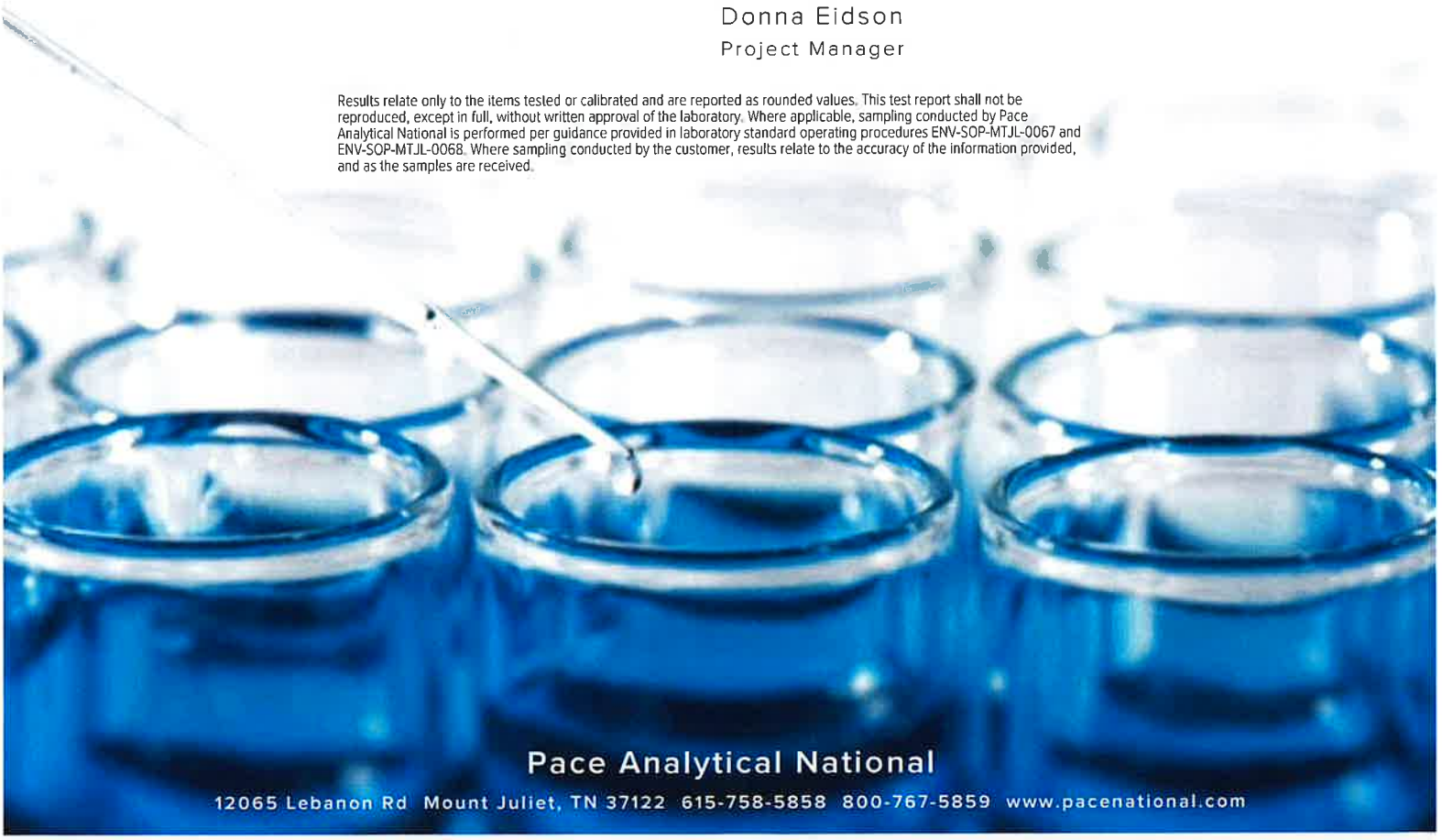


TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP-1470_04282023 L1611210-01 GW

			Collected by	Collected date/time	Received date/time
				04/28/23 12:45	05/02/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2054592	1	05/05/23 06:45	05/05/23 13:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2056450	1	05/09/23 09:46	05/09/23 09:46	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2052485	1	05/03/23 00:09	05/03/23 00:09	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2054481	1	05/05/23 09:58	05/05/23 09:58	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2053951	1	05/06/23 17:01	05/06/23 17:01	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2056653	1	05/10/23 00:49	05/10/23 00:49	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2056653	5	05/10/23 01:02	05/10/23 01:02	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2054505	1	05/05/23 12:09	05/07/23 21:55	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2054249	1	05/08/23 15:43	05/09/23 08:55	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2054267	1	05/07/23 11:25	05/07/23 16:16	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	792	J3	13.3	1	05/05/2023 13:12	WG2054592

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity,Carbonate	U		8.45	20.0	1	05/09/2023 09:46	WG2056450

Sample Narrative:
L1611210-01 WG2056450: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.41		0.0500	0.100	1	05/03/2023 00:09	WG2052485

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.26	T8	1	05/05/2023 09:58	WG2054481

Sample Narrative:
L1611210-01 WG2054481: 7.26 at 19.3C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1160		10.0	1	05/06/2023 17:01	WG2053951

Sample Narrative:
L1611210-01 WG2053951: at 25C

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Fluoride	0.201		0.0640	0.150	1	05/10/2023 00:49	WG2056653
Sulfate	387		2.97	25.0	5	05/10/2023 01:02	WG2056653

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	05/07/2023 21:55	WG2054505

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.404	O1	0.00440	0.0100	1	05/09/2023 08:55	WG2054249
Barium	0.172	O1	0.000736	0.00500	1	05/09/2023 08:55	WG2054249
Beryllium	U		0.000330	0.00200	1	05/09/2023 08:55	WG2054249
Cadmium	0.000702	J	0.000479	0.00200	1	05/09/2023 08:55	WG2054249
Calcium	116	O1 V	0.0793	1.00	1	05/09/2023 08:55	WG2054249
Chromium	0.00231	J	0.00140	0.0100	1	05/09/2023 08:55	WG2054249
Copper	0.0907		0.00368	0.0100	1	05/09/2023 08:55	WG2054249

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	7.19	O1	0.0180	0.100	1	05/09/2023 08:55	WG2054249
Lead	0.0470		0.00299	0.00600	1	05/09/2023 08:55	WG2054249
Magnesium	65.5	O1	0.0853	1.00	1	05/09/2023 08:55	WG2054249
Manganese	0.0654	O1	0.000934	0.0100	1	05/09/2023 08:55	WG2054249
Nickel	0.465	O1	0.00161	0.0100	1	05/09/2023 08:55	WG2054249
Potassium	4.60		0.261	2.00	1	05/09/2023 08:55	WG2054249
Selenium	U		0.00735	0.0100	1	05/09/2023 08:55	WG2054249
Sodium	35.1	O1	0.504	3.00	1	05/09/2023 08:55	WG2054249

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony	0.00511		0.00103	0.00400	1	05/07/2023 16:16	WG2054267
Thallium	0.00970		0.000121	0.00200	1	05/07/2023 16:16	WG2054267
Uranium	0.163		0.0000789	0.00100	1	05/07/2023 16:16	WG2054267
Vanadium	0.00105	J	0.000664	0.00500	1	05/07/2023 16:16	WG2054267
Zinc	0.536	V	0.00302	0.0250	1	05/07/2023 16:16	WG2054267

Method Blank (MB)

(MB) R3922214-1 05/05/23 13:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1610957-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1610957-01 05/05/23 13:12 • (DUP) R3922214-3 05/05/23 13:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	41200	50500	1	20.3	J3	5

L1611210-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611210-01 05/05/23 13:12 • (DUP) R3922214-4 05/05/23 13:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	792	896	1	12.3	J3	5

Laboratory Control Sample (LCS)

(LCS) R3922214-2 05/05/23 13:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8530	96.9	77.3-123	

Method Blank (MB)

(MB) R3922652-2 05/09/23 09:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1611086-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611086-01 05/09/23 09:38 • (DUP) R3922652-4 05/09/23 09:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1611722-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1611722-03 05/09/23 13:51 • (DUP) R3922652-6 05/09/23 13:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R3920127-1 05/02/23 23:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1611105-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611105-01 05/03/23 00:31 • (DUP) R3920127-11 05/03/23 00:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	5.66	5.62	2	0.709		20

L1611331-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1611331-02 05/03/23 00:36 • (DUP) R3920127-13 05/03/23 00:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	2.54	2.60	2	2.33		20

Laboratory Control Sample (LCS)

(LCS) R3920127-2 05/02/23 23:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.58	103	90.0-110	

L1611105-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1611105-01 05/03/23 00:31 • (MS) R3920127-12 05/03/23 00:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	5.66	8.04	95.2	2	90.0-110	

L1611331-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1611331-02 05/03/23 00:36 • (MS) R3920127-14 05/03/23 00:38 • (MSD) R3920127-15 05/03/23 00:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	2.54	5.16	5.14	105	104	2	90.0-110			0.388	20

L1610922-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1610922-01 05/05/23 09:58 • (DUP) R3921385-2 05/05/23 09:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.18	8.18	1	0.000		1

Sample Narrative:
OS: 8.18 at 19.5C
DUP: 8.18 at 19.4C

L1611594-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611594-01 05/05/23 09:58 • (DUP) R3921385-3 05/05/23 09:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.58	7.60	1	0.264		1

Sample Narrative:
OS: 7.58 at 19.9C
DUP: 7.6 at 19.8C

Laboratory Control Sample (LCS)

(LCS) R3921385-1 05/05/23 09:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:
LCS: 9.99 at 20.7C

Method Blank (MB)

(MB) R3921724-1 05/06/23 17:01

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1609982-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1609982-01 05/06/23 17:01 • (DUP) R3921724-3 05/06/23 17:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1611736-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611736-01 05/06/23 17:01 • (DUP) R3921724-4 05/06/23 17:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	173	174	1	0.288		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3921724-2 05/06/23 17:01

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1120	100	85.0-115	

Sample Narrative:
LCS: at 25C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3923744-1 05/09/23 19:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1611084-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1611084-01 05/09/23 20:07 • (DUP) R3923744-3 05/09/23 20:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	100	0.000		15
Sulfate	1700	1690	100	0.354		15

L1611682-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1611682-09 05/10/23 14:07 • (DUP) R3923744-6 05/10/23 14:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.705	0.717	1	1.72		15
Sulfate	286	290	1	1.35	E	15

L1611682-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1611682-09 05/10/23 14:19 • (DUP) R3923744-7 05/10/23 14:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	297	296	5	0.144		15

Laboratory Control Sample (LCS)

(LCS) R3923744-2 05/09/23 19:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	7.55	94.4	80.0-120	
Sulfate	40.0	38.3	95.8	80.0-120	

L1611084-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1611084-01 05/09/23 20:07 • (MS) R3923744-4 05/09/23 20:33 • (MSD) R3923744-5 05/09/23 20:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	U	U	U	0.000	0.000	100	80.0-120	J6	J6	0.000	15
Sulfate	50.0	1700	1590	1670	0.000	0.000	100	80.0-120	V	V	4.80	15

L1611682-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1611682-09 05/10/23 14:07 • (MS) R3923744-8 05/10/23 14:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	0.705	5.15	88.8	1	80.0-120	
Sulfate	50.0	286	320	67.8	1	80.0-120	E V

Method Blank (MB)

(MB) R3921880-1 05/07/23 21:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3921880-2 05/07/23 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00315	105	80.0-120	

L1611234-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1611234-07 05/07/23 21:33 • (MS) R3921880-3 05/07/23 21:41 • (MSD) R3921880-4 05/07/23 21:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00316	0.00317	105	106	1	75.0-125			0.316	20

Method Blank (MB)

(MB) R3922509-1 05/09/23 08:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00440	0.0100
Barium	U		0.000736	0.00500
Beryllium	U		0.000330	0.00200
Cadmium	U		0.000479	0.00200
Calcium	U		0.0793	1.00
Chromium	U		0.00140	0.0100
Copper	U		0.00368	0.0100
Iron	0.0341	J	0.0180	0.100
Lead	U		0.00299	0.00600
Magnesium	U		0.0853	1.00
Manganese	U		0.000934	0.0100
Nickel	U		0.00161	0.0100
Potassium	U		0.261	2.00
Selenium	U		0.00735	0.0100
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3922509-2 05/09/23 08:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	0.984	98.4	80.0-120	
Barium	1.00	1.05	105	80.0-120	
Beryllium	1.00	0.998	99.8	80.0-120	
Cadmium	1.00	1.00	100	80.0-120	
Calcium	10.0	10.2	102	80.0-120	
Chromium	1.00	1.01	101	80.0-120	
Copper	1.00	1.03	103	80.0-120	
Iron	10.0	10.2	102	80.0-120	
Lead	1.00	0.974	97.4	80.0-120	
Magnesium	10.0	9.98	99.8	80.0-120	
Manganese	1.00	0.948	94.8	80.0-120	
Nickel	1.00	0.982	98.2	80.0-120	
Potassium	10.0	9.90	99.0	80.0-120	
Selenium	1.00	1.02	102	80.0-120	
Sodium	10.0	10.0	100	80.0-120	

L1611210-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1611210-01 05/09/23 08:55 • (MS) R3922509-4 05/09/23 09:00 • (MSD) R3922509-5 05/09/23 09:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	0.404	1.42	1.43	101	102	1	75.0-125			0.564	20
Barium	1.00	0.172	1.25	1.32	108	114	1	75.0-125			4.78	20
Beryllium	1.00	U	0.971	0.988	97.1	98.8	1	75.0-125			1.68	20
Cadmium	1.00	0.000702	1.02	1.04	102	104	1	75.0-125			1.97	20
Calcium	10.0	116	123	123	76.1	70.5	1	75.0-125		V	0.457	20
Chromium	1.00	0.00231	1.00	1.01	100	101	1	75.0-125			0.537	20
Copper	1.00	0.0907	1.14	1.15	105	106	1	75.0-125			0.728	20
Iron	10.0	7.19	16.7	16.9	95.6	96.9	1	75.0-125			0.820	20
Lead	1.00	0.0470	1.02	1.04	96.8	98.8	1	75.0-125			1.95	20
Magnesium	10.0	65.5	74.1	73.9	86.2	84.0	1	75.0-125			0.292	20
Manganese	1.00	0.0654	0.991	0.995	92.5	93.0	1	75.0-125			0.458	20
Nickel	1.00	0.465	1.44	1.46	97.0	99.1	1	75.0-125			1.46	20
Potassium	10.0	4.60	14.3	14.4	96.9	98.5	1	75.0-125			1.11	20
Selenium	1.00	U	1.05	1.08	105	108	1	75.0-125			2.88	20
Sodium	10.0	35.1	44.2	43.8	91.7	87.5	1	75.0-125			0.947	20

Method Blank (MB)

(MB) R3921841-1 05/07/23 16:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00103	0.00400
Thallium	U		0.000121	0.00200
Uranium	U		0.0000789	0.00100
Vanadium	U		0.000664	0.00500
Zinc	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3921841-2 05/07/23 16:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0461	92.3	80.0-120	
Thallium	0.0500	0.0473	94.7	80.0-120	
Uranium	0.0500	0.0457	91.3	80.0-120	
Vanadium	0.0500	0.0481	96.2	80.0-120	
Zinc	0.0500	0.0473	94.7	80.0-120	

L1611210-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1611210-01 05/07/23 16:16 • (MS) R3921841-4 05/07/23 16:22 • (MSD) R3921841-5 05/07/23 16:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	0.00511	0.0536	0.0517	97.0	93.1	1	75.0-125			3.64	20
Thallium	0.0500	0.00970	0.0566	0.0549	93.8	90.3	1	75.0-125			3.09	20
Uranium	0.0500	0.163	0.215	0.211	105	96.4	1	75.0-125			2.11	20
Vanadium	0.0500	0.00105	0.0489	0.0478	95.8	93.6	1	75.0-125			2.30	20
Zinc	0.0500	0.536	0.586	0.567	99.1	60.2	1	75.0-125		V	3.38	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Company Name/Address:
Energy Fuels Resources

3549 South Cheryl Drive
Flagstaff, AZ 86005

Billing Information:
Accounts Payable
3549 South Cheryl Drive
Suite 600
Lakewood, CO 80228

Pres Chk

Report to: **Kathy Weinel**

Email To: **KWeinel@energyfuels.com**

Project Description:

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project # **ENEFUELCO**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00122017

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALKCA 125mlHDPE-NoPres	FLUORIDE,SULFATE 125mlHDPE-NoPres	GROSS ALPHA 500mlHDPE-Add HNO3	NO2NO3 250mlHDPE-H2SO4	PH 125mlHDPE-NoPres	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3		Remarks	Sample # (lab only)
SUMP-1470-04282023	Grab	GW	1470	04/28/23	1245	6	X	X		X	X			X	X			-01
		GW				6	X	X		X	X			X	X			-02
		GW				6	X	X		X	X			X	X			-03 HR 5/2
		GW				6	X	X		X	X			X	X			-04
		GW				6	X	X		X	X			X	X			-05
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1611210

B039

Table #

Acctnum:

Template: ...492

Prelogin: P948242

PM: 732 - Donna Eldson

PB: 5/31/22 mb

Shipped Via: FedEX Ground

Remarks | Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Sump Discharge

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact: NP	Y	N
COC Signed/Accurate:	Y	N
Bottles arrive intact:	Y	N
Correct bottles used:	Y	N
Sufficient volume sent:	Y	N
If Applicable		
VOA Zero Headspace:	Y	N
Preservation Correct/Checked:	Y	N
RAD Screen <0.5 mR/hr:	Y	N

Relinquished by : (Signature)	Date: 5/1/2023	Time: 1200	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: NS/RC Bottles Received: 6-3 to 6-3 7
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5-2-22 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ENERGY FUELS

L1611210

CANYON MINE WATER SAMPLING FIELD FORM

Sampling Event/Purpose: Shaft Sump Quarterly sample

Sampling Location/Description: Sump 1470', sampled from Surface Discharge Pipe

Sample ID: SUMP-1470-04282023 Sampler's Name: Matt Germansen

Weather: Sunny, Calm, 70° F

FIELD MEASUREMENTS 4/28/23 12:45

Conductance: 928.8 Units: MS/cm

pH: 7.19

Temperature : 16.83 °C

Redox Potential: 288 mV

Turbidity: 141

DO: 112%

Conductance: Units:

pH:

Temperature :

Redox Potential:

Turbidity:

Notes/Comments:

Laboratory Name: Pace

Date Shipped: 5/1/2023

ANALYTICAL REPORT

April 10, 2023

Energy Fuels Resources

Sample Delivery Group:	L1598913
Samples Received:	03/28/2023
Project Number:	
Description:	Pinyon Plain Mine Aquifer Protection Permit

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

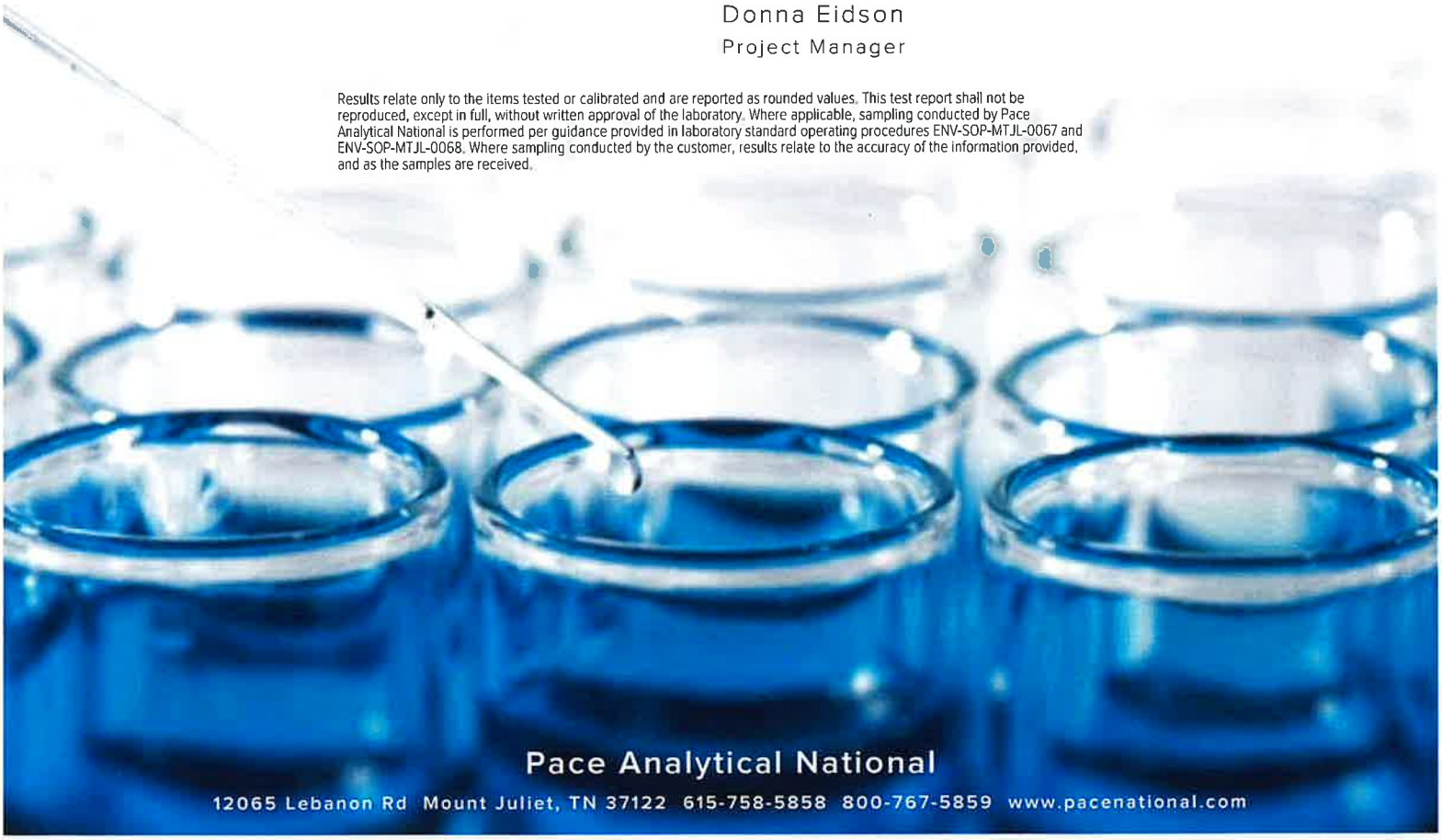


TABLE OF CONTENTS

SAMPLE SUMMARY

RW-01_03272023 L1598913-01 GW

Collected by: Matt Germansen
Collected date/time: 03/27/23 14:37
Received date/time: 03/28/23 09:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2032504	1	03/30/23 10:13	03/30/23 11:45	AS	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2037643	1	04/07/23 11:37	04/07/23 11:37	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2030208	1	03/29/23 21:56	03/29/23 21:56	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2035647	1	04/05/23 17:52	04/05/23 17:52	KAD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2036064	1	04/07/23 10:55	04/07/23 10:55	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2036617	1	04/06/23 01:02	04/06/23 01:02	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2031777	1	03/29/23 10:23	03/30/23 11:06	SRT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2031813	1	03/29/23 11:45	03/29/23 17:37	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2031804	1	03/29/23 14:06	03/30/23 12:05	JPD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	236		10.0	1	03/30/2023 11:45	WG2032504

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity	214		8.45	20.0	1	04/07/2023 11:37	WG2037643

Sample Narrative:
L1598913-01 WG2037643: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.0552	J	0.0500	0.100	1	03/29/2023 21:56	WG2030208

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.88	T8	1	04/05/2023 17:52	WG2035647

Sample Narrative:
L1598913-01 WG2035647: 7.88 at 21.4C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	444		10.0	1	04/07/2023 10:55	WG2036064

Sample Narrative:
L1598913-01 WG2036064: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.253		0.0640	0.150	1	04/06/2023 01:02	WG2036617
Sulfate	19.2		0.594	5.00	1	04/06/2023 01:02	WG2036617

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury,Dissolved	U		0.000100	0.000200	1	03/30/2023 11:06	WG2031777

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic,Dissolved	U		0.00440	0.0100	1	03/29/2023 17:37	WG2031813
Barium,Dissolved	0.0791		0.000736	0.00500	1	03/29/2023 17:37	WG2031813
Beryllium,Dissolved	U		0.000330	0.00200	1	03/29/2023 17:37	WG2031813
Cadmium,Dissolved	U		0.000479	0.00200	1	03/29/2023 17:37	WG2031813
Calcium,Dissolved	42.3		0.0793	1.00	1	03/29/2023 17:37	WG2031813
Chromium,Dissolved	U		0.00140	0.0100	1	03/29/2023 17:37	WG2031813
Lead,Dissolved	U		0.00299	0.00600	1	03/29/2023 17:37	WG2031813

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Magnesium,Dissolved	29.2		0.0853	1.00	1	03/29/2023 17:37	WG2031813
Nickel,Dissolved	0.0291		0.00161	0.0100	1	03/29/2023 17:37	WG2031813
Potassium,Dissolved	2.82	B	0.261	2.00	1	03/29/2023 17:37	WG2031813
Selenium,Dissolved	U		0.00735	0.0100	1	03/29/2023 17:37	WG2031813
Sodium,Dissolved	6.75	B	0.504	3.00	1	03/29/2023 17:37	WG2031813

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.00103	0.00400	1	03/30/2023 12:05	WG2031804
Thallium,Dissolved	U		0.000121	0.00200	1	03/30/2023 12:05	WG2031804
Uranium,Dissolved	0.0136		0.0000789	0.00100	1	03/30/2023 12:05	WG2031804

Method Blank (MB)

(MB) R3908146-1 03/30/23 11:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1597715-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1597715-01 03/30/23 11:45 • (DUP) R3908146-3 03/30/23 11:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1400	1430	1	2.16		5

L1597819-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1597819-01 03/30/23 11:45 • (DUP) R3908146-4 03/30/23 11:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	10600	11900	1	11.6	J3	5

Laboratory Control Sample (LCS)

(LCS) R3908146-2 03/30/23 11:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7550	85.8	77.3-123	

Method Blank (MB)

(MB) R3911200-2 04/07/23 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1598913-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1598913-01 04/07/23 11:37 • (DUP) R3911200-3 04/07/23 11:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	214	214	1	0.0854		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1602135-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1602135-17 04/07/23 13:50 • (DUP) R3911200-4 04/07/23 13:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	454	463	1	2.06		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3911200-1 04/07/23 11:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	99.8	99.8	90.0-110	

Sample Narrative:
LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3907076-1 03/29/23 21:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1598202-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1598202-01 03/29/23 21:38 • (DUP) R3907076-3 03/29/23 21:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.237	0.238	1	0.421		20

L1599041-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1599041-02 03/29/23 22:05 • (DUP) R3907076-5 03/29/23 22:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.372	0.371	1	0.269		20

Laboratory Control Sample (LCS)

(LCS) R3907076-2 03/29/23 21:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1598202-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1598202-01 03/29/23 21:38 • (MS) R3907076-4 03/29/23 21:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.237	2.84	104	1	90.0-110	

L1599041-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1599041-02 03/29/23 22:05 • (MS) R3907076-6 03/29/23 22:08 • (MSD) R3907076-7 03/29/23 22:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.372	2.91	2.86	102	99.5	1	90.0-110			1.73	20

L1598881-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1598881-01 04/05/23 17:52 • (DUP) R3909786-2 04/05/23 17:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.15	7.12	1	0.420		1

Sample Narrative:
OS: 7.15 at 21.5C
DUP: 7.12 at 21.4C

L1601873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1601873-01 04/05/23 17:52 • (DUP) R3909786-3 04/05/23 17:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.89	7.92	1	0.380		1

Sample Narrative:
OS: 7.89 at 20.6C
DUP: 7.92 at 20.5C

Laboratory Control Sample (LCS)

(LCS) R3909786-1 04/05/23 17:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:
LCS: 9.99 at 21.4C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3910522-1 04/07/23 10:55

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1600067-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1600067-01 04/07/23 10:55 • (DUP) R3910522-3 04/07/23 10:55

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1600694-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1600694-04 04/07/23 10:55 • (DUP) R3910522-4 04/07/23 10:55

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	300	297	1	1.01		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3910522-2 04/07/23 10:55

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	1120	1140	102	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3910018-1 04/06/23 00:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1600858-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1600858-01 04/06/23 01:29 • (DUP) R3910018-3 04/06/23 01:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.66	1.67	1	0.420		15
Sulfate	0.618	0.620	1	0.420	J	15

L1600863-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1600863-11 04/06/23 06:26 • (DUP) R3910018-6 04/06/23 06:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.15	1.15	1	0.121		15
Sulfate	30.7	30.9	1	0.548		15

Laboratory Control Sample (LCS)

(LCS) R3910018-2 04/06/23 00:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.04	100	80.0-120	
Sulfate	40.0	38.6	96.6	80.0-120	

L1600858-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600858-01 04/06/23 01:29 • (MS) R3910018-4 04/06/23 01:56 • (MSD) R3910018-5 04/06/23 02:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	1.66	6.15	6.22	89.7	91.2	1	80.0-120			1.23	15
Sulfate	50.0	0.618	50.3	50.1	99.3	99.1	1	80.0-120			0.233	15

L1600863-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1600863-11 04/06/23 06:26 • (MS) R3910018-7 04/06/23 06:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	1.15	6.29	103	1	80.0-120	
Sulfate	50.0	30.7	79.1	96.6	1	80.0-120	

Method Blank (MB)

(MB) R3907329-1 03/30/23 11:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3907329-2 03/30/23 11:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00306	102	80.0-120	

L1598913-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1598913-01 03/30/23 11:06 • (MS) R3907329-3 03/30/23 11:12 • (MSD) R3907329-4 03/30/23 11:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00309	0.00306	103	102	1	75.0-125			0.986	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3907056-1 03/29/23 16:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.00440	0.0100
Barium,Dissolved	U		0.000736	0.00500
Beryllium,Dissolved	0.000391	J	0.000330	0.00200
Cadmium,Dissolved	U		0.000479	0.00200
Calcium,Dissolved	U		0.0793	1.00
Chromium,Dissolved	U		0.00140	0.0100
Lead,Dissolved	U		0.00299	0.00600
Magnesium,Dissolved	U		0.0853	1.00
Nickel,Dissolved	U		0.00161	0.0100
Potassium,Dissolved	1.57	J	0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	1.18	J	0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3907056-2 03/29/23 16:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	1.00	0.927	92.7	80.0-120	
Barium,Dissolved	1.00	0.984	98.4	80.0-120	
Beryllium,Dissolved	1.00	0.963	96.3	80.0-120	
Cadmium,Dissolved	1.00	0.940	94.0	80.0-120	
Calcium,Dissolved	10.0	9.86	98.6	80.0-120	
Chromium,Dissolved	1.00	0.971	97.1	80.0-120	
Lead,Dissolved	1.00	0.959	95.9	80.0-120	
Magnesium,Dissolved	10.0	9.39	93.9	80.0-120	
Nickel,Dissolved	1.00	0.967	96.7	80.0-120	
Potassium,Dissolved	10.0	10.5	105	80.0-120	
Selenium,Dissolved	1.00	0.962	96.2	80.0-120	
Sodium,Dissolved	10.0	10.3	103	80.0-120	

L1597529-57 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1597529-57 03/29/23 16:51 • (MS) R3907056-4 03/29/23 16:56 • (MSD) R3907056-5 03/29/23 16:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1.00	U	0.973	0.998	97.3	99.8	1	75.0-125			2.54	20
Barium,Dissolved	1.00	0.00898	0.971	0.985	96.2	97.6	1	75.0-125			1.41	20
Beryllium,Dissolved	1.00	U	0.940	0.950	94.0	95.0	1	75.0-125			1.06	20

QUALITY CONTROL SUMMARY

L1598913-01

L1597529-57 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1597529-57 03/29/23 16:51 • (MS) R3907056-4 03/29/23 16:56 • (MSD) R3907056-5 03/29/23 16:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium,Dissolved	1.00	U	0.976	0.990	97.6	99.0	1	75.0-125			1.36	20
Calcium,Dissolved	10.0	422	420	416	0.000	0.000	1	75.0-125	V	V	0.764	20
Chromium,Dissolved	1.00	0.00153	0.936	0.951	93.5	95.0	1	75.0-125			1.58	20
Lead,Dissolved	1.00	U	0.946	0.960	94.6	96.0	1	75.0-125			1.47	20
Magnesium,Dissolved	10.0	294	296	293	20.3	0.000	1	75.0-125	V	V	0.986	20
Nickel,Dissolved	1.00	0.00550	0.965	0.985	96.0	97.9	1	75.0-125			1.99	20
Potassium,Dissolved	10.0	1.87	12.4	12.7	105	108	1	75.0-125			2.63	20
Selenium,Dissolved	1.00	U	1.03	1.07	103	107	1	75.0-125			3.88	20
Sodium,Dissolved	10.0	268	271	269	28.9	11.1	1	75.0-125	V	V	0.661	20

Method Blank (MB)

(MB) R3907281-1 03/30/23 11:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony,Dissolved	U		0.00103	0.00400
Thallium,Dissolved	U		0.000121	0.00200
Uranium,Dissolved	U		0.0000789	0.00100

Laboratory Control Sample (LCS)

(LCS) R3907281-2 03/30/23 11:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony,Dissolved	0.0500	0.0469	93.8	80.0-120	
Thallium,Dissolved	0.0500	0.0479	95.8	80.0-120	
Uranium,Dissolved	0.0500	0.0456	91.1	80.0-120	

L1598580-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1598580-23 03/30/23 11:32 • (MS) R3907281-4 03/30/23 11:39 • (MSD) R3907281-5 03/30/23 11:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	0.0500	U	0.0475	0.0463	95.0	92.6	1	75.0-125			2.63	20
Thallium,Dissolved	0.0500	U	0.0465	0.0478	93.0	95.7	1	75.0-125			2.87	20
Uranium,Dissolved	0.0500	U	0.0458	0.0467	91.6	93.4	1	75.0-125			1.96	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

" Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Energy Fuels Resources

225 Union Blvd
Suite 600
Lakewood, CO 80228

Billing Information:
Accounts Payable
225 Union Blvd
Suite 600
Lakewood, CO 80228

Pres Chk

Report to: **Kathy Weinel**

Email To: KWeinel@energyfuels.com

Project Description: **Pinyon Plain Mine Aquifer Protection Permit**

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project # **ENEFUELCO-PINYONMINE**

Collected by (print): Matt Germaansen

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # 00122018

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative: *Diss Metals (FF) 250mlHDPE HNO3	Alkalinity, PH 125mlHDPE NoPres	Fluoride, Sulfate 125mlHDPE NoPres	NO2NO3 250mlHDPE H2SO4	TDS 1L HDPE NoPres	Remarks	Sample # (lab only)
RW-01_03272023	Grab	GW		3.27.23	1437	7	See Quote #00122018 includes Rad and Non Rad Analysis						-01
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1598113
A097

Acctnum: ENEFUELCO
Template: T217177
Prelogin: P954391
PM: 732 - Donna Eidson
PB: DE 9/28/22
Shipped Via: FedEX Priority

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: GW Sampling See Quote for Rad & Non Rads

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # UPS

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	3/27/2023	1515		—	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.0 °C Bottles Received: 7	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3.28.23 Time: 0920	Hold: Condition: NCF / OK

ANALYTICAL REPORT

June 15, 2023

Energy Fuels Resources

Sample Delivery Group:	L1612601
Samples Received:	05/02/2023
Project Number:	
Description:	PINYON PLAIN SUMP DISCHARGE

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

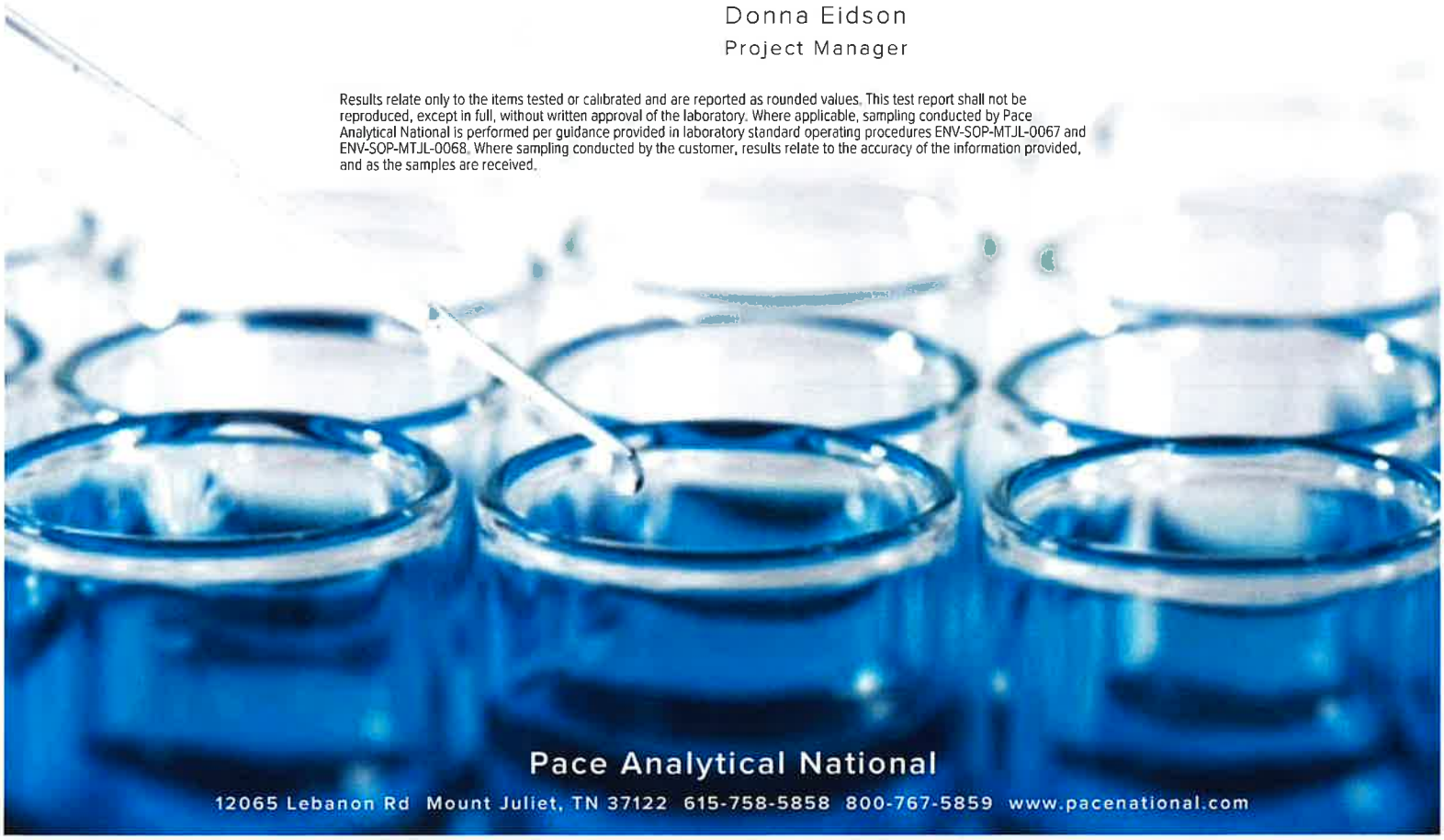


TABLE OF CONTENTS

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
SUMP-1470_042823 L1612601-01 Non-Potable Water		04/28/23 12:45	05/02/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2059010	1	05/15/23 10:16	05/24/23 21:14	RRE	Mt. Juliet, TN
Radiochemistry by Method 903.0/9315	WG2065183	1	06/05/23 12:18	06/12/23 23:09	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2070600	1	06/02/23 12:52	06/07/23 21:28	SNR	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2061980	1	05/20/23 12:02	05/26/23 00:00	RRE	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Radiochemistry by Method 900

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
GROSS ALPHA	384		16.8	3.66	05/24/2023 21:14	WG2059010

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Radium-226	7.21		0.912	0.244	06/12/2023 23:09	WG2065183
(T) Barium	*98.6*			*30.0-143*	*06/12/2023 23:09*	WG2065183

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.06		0.393	0.656	06/07/2023 21:28	WG2070600
(T) Barium	*94.1*			*30.0-143*	*06/07/2023 21:28*	WG2070600
(T) Yttrium	*100*			*30.0-136*	*06/07/2023 21:28*	WG2070600

Radiochemistry by Method D3972 U-02

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
URANIUM-234	122		5.08	0.291	05/26/2023 00:00	WG2061980
URANIUM-235	2.02		0.658	0.254	05/26/2023 00:00	WG2061980
URANIUM-238	59.2		3.54	0.291	05/26/2023 00:00	WG2061980
(T) URANIUM-232	*66.2*			*30.0-110*	*05/26/2023 00:00*	WG2061980

Method Blank (MB)

(MB) R3929350-1 05/22/23 13:17

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
GROSS ALPHA	-0.145	U	0.257	0.499

L1610289-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1610289-03 05/22/23 13:17 • (DUP) R3929350-5 05/22/23 13:17

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
GROSS ALPHA	-0.299	0.483	0.814	0.0213	0.291	0.814	1	200	0.568	U	20	3

Laboratory Control Sample (LCS)

(LCS) R3929350-2 05/22/23 13:17

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
GROSS ALPHA	15.0	15.1	101	80.0-120	

L1610172-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1610172-01 05/22/23 13:17 • (MS) R3929350-3 05/22/23 13:17 • (MSD) R3929350-4 05/22/23 13:17

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
GROSS ALPHA	15.0	0.0673	14.5	13.3	96.5	88.4	1	70.0-130			8.68		20

Method Blank (MB)

(MB) R3936766-1 06/12/23 19:08

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.196		0.128	0.181
(T) Barium	*104*		*104*	

L1612960-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1612960-05 06/13/23 00:10 • (DUP) R3936766-5 06/12/23 20:09

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.570	0.276	0.269	1.04	0.560	0.269	1	58.7	0.759		20	3
(T) Barium	*96.2*			*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R3936766-2 06/12/23 19:08

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.53	110	80.0-120	
(T) Barium			*100*		

L1612958-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612958-04 06/12/23 23:09 • (MS) R3936766-3 06/12/23 19:08 • (MSD) R3936766-4 06/12/23 19:08

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.185	21.8	20.4	108	101	1	75.0-125			6.74		20
(T) Barium		*105*			*101*	*103*							

Method Blank (MB)

(MB) R3934886-1 06/07/23 21:28

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.369		0.151	0.265
(T) Barium	*108*		*108*	
(T) Yttrium	*95.4*		*95.4*	

L1619310-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1619310-03 06/07/23 21:28 • (DUP) R3934886-5 06/07/23 21:28

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.353	0.400	0.720	0.810	0.351	0.720	1	78.6	0.859		20	3
(T) Barium	*110*			*117*	*117*							
(T) Yttrium	*99.4*			*102*	*102*							

Laboratory Control Sample (LCS)

(LCS) R3934886-2 06/07/23 21:28

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.65	92.9	80.0-120	
(T) Barium			*109*		
(T) Yttrium			*103*		

L1612601-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612601-01 06/07/23 21:28 • (MS) R3934886-3 06/07/23 21:28 • (MSD) R3934886-4 06/07/23 21:28

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	2.06	14.8	16.0	76.4	83.3	1	70.0-130			7.47		20
(T) Barium		*94.1*			*92.3*	*101*							
(T) Yttrium		*100*			*107*	*86.0*							

Method Blank (MB)

(MB) R3936843-1 05/26/23 00:00

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
URANIUM-234	0.137	J	0.127	0.151
URANIUM-235	0.0708	J	0.0983	0.143
URANIUM-238	0.101	J	0.124	0.173
(T) URANIUM-232	*35.9*		*35.9*	

L1607291-44 Original Sample (OS) • Duplicate (DUP)

(OS) L1607291-44 05/26/23 00:00 • (DUP) R3936843-5 05/26/23 00:00

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
URANIUM-234	35.6	3.39	0.521	30.5	3.09	0.521	1	15.4	1.11		20	3
URANIUM-235	0.644	0.470	0.386	0.979	0.590	0.386	1	41.3	0.444		20	3
URANIUM-238	11.1	1.90	0.386	9.25	1.71	0.386	1	18.4	0.735		20	3
(T) URANIUM-232	*41.6*			*40.6*	*40.6*							

Laboratory Control Sample (LCS)

(LCS) R3936843-2 05/26/23 00:00

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
URANIUM-234	5.03	4.39	87.3	80.0-120	
URANIUM-238	4.90	4.92	100	80.0-120	
(T) URANIUM-232			*48.1*		

L1607291-38 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1607291-38 05/26/23 00:00 • (MS) R3936843-6 06/13/23 16:11 • (MSD) R3936843-4 05/26/23 00:00

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
URANIUM-234	25.2	0.588	20.1	23.7	77.5	91.6	1	75.0-125			16.2		20
URANIUM-238	24.5	0.271	23.6	24.8	95.1	99.9	1	75.0-125			4.88		20
(T) URANIUM-232		*50.7*			*30.8*	*87.0*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Company Name/Address:
Energy Fuels Resources

3549 South Cheryl Drive
Flagstaff, AZ 86005

Billing Information:
Accounts Payable
3549 South Cheryl Drive
Suite 600
Lakewood, CO 80228

Pres Chk

Report to:
Kathy Weinel

Email To: KWeinel@energyfuels.com

Project Description:

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #
ENEFUELCO

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
00122017

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALKCA 125mlHDPE-NoPres	FLUORIDE,SULFATE 125mlHDPE-NoPres	GROSS ALPHA 500mlHDPE-Add HNO3	NO2NO3 250mlHDPE-H2SO4	PH 125mlHDPE-NoPres	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3		Remarks	Sample # (lab only)
SUMP-1470-04282023	Grab	GW	1470	04/28/23	1245	6	X	X		X	X			X	X			-01
		GW				6	X	X		X	X			X	X			-02
		GW				6	X	X		X	X			X	X			-03 HR
		GW				6	X	X		X	X			X	X			-04
		GW				6	X	X		X	X			X	X			-05
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					
		NPW				4			X			X	X					

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN

SDG # L1611210
Table # B039
Acctnum:
Template: 492
Prelogin: P948242
PM: 733 - Donna Eidson
PB: 5/31/23 mw
Shipped Via: FedEx Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: Sump Discharge

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP
COC Signed/Accurate:
Bottles arrive intact:
Correct bottles used:
Sufficient volume sent:
If Applicable
VOA Zero Headspace:
Preservation Correct/Checked:
RAD Screen <0.5 mR/hr:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeOH TBR	If preservation required by Login: Date/Time
	5/1/2023	1200			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: N/A °C Bottles Received: 6-3+0=63 7	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5-3-23 Time: 9:00	Hold: Condition: NCF / OK

ENERGY FUELS

L16126C1
~~L1611210~~

CANYON MINE WATER SAMPLING FIELD FORM

Sampling Event/Purpose: Shaft Sump Quarterly sample

Sampling Location/Description: Sump 1470', sampled from Surface Discharge Pipe

Sample ID: SUMP-1470-04282023 Sampler's Name: Matt Germansen

Weather: Sunny, Calm, 70° F

FIELD MEASUREMENTS 4/28/23 12:45

Conductance: 928.8 Units: MS/cm

pH: 7.19

Temperature : 16.83 °C

Redox Potential: 288 mV

Turbidity: 141

DO: 112%

Conductance: Units:

pH:

Temperature :

Redox Potential:

Turbidity:

Notes/Comments:

Laboratory Name: Pace

Date Shipped: 5/1/2023

ANALYTICAL REPORT

August 02, 2023

Energy Fuels Resources

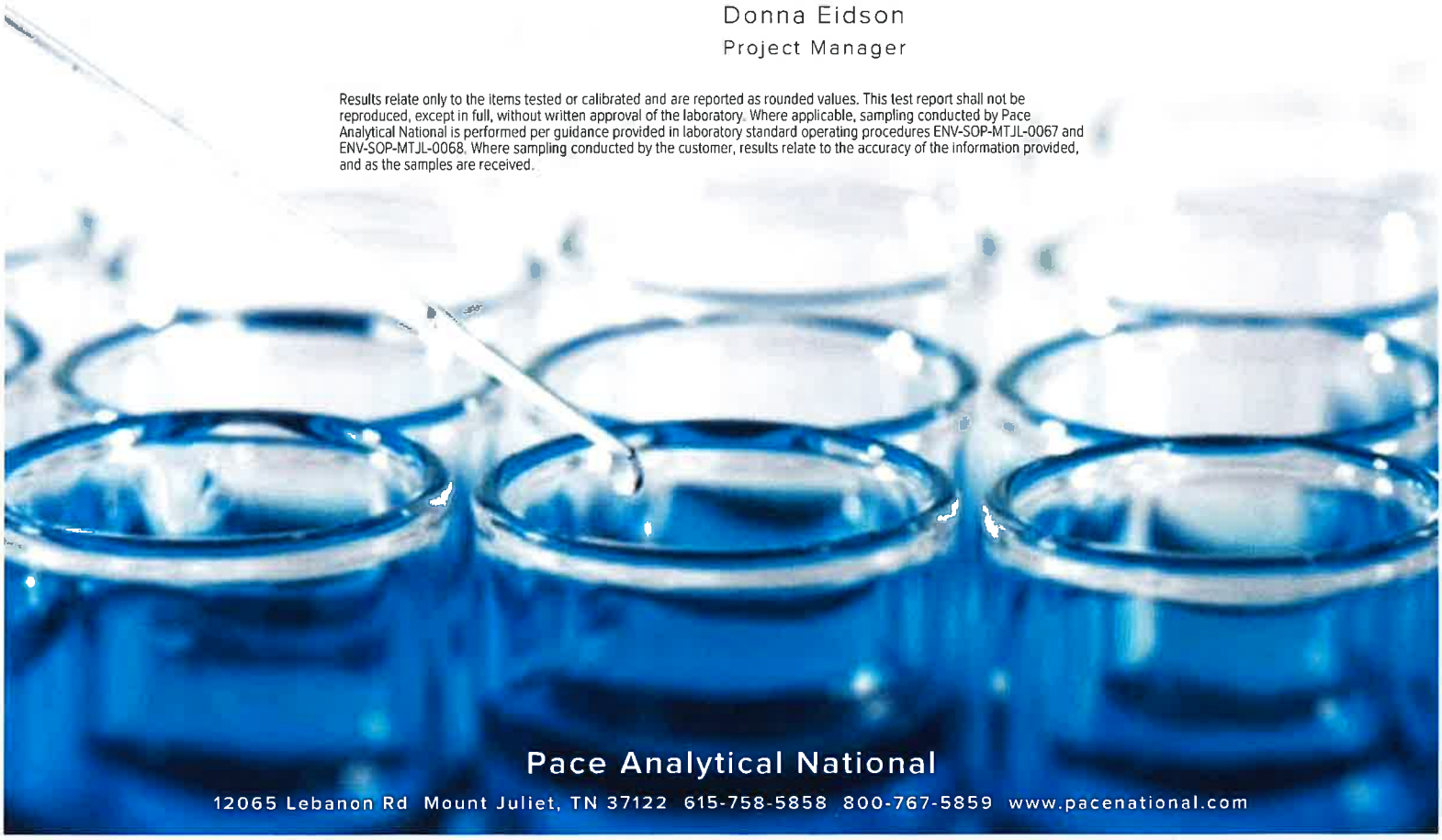
Sample Delivery Group:	L1637911
Samples Received:	07/21/2023
Project Number:	
Description:	PINYON PLAIN SUMP DISCHARGE

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP-1470_07162023 L1637911-01 GW

Collected by: MG
Collected date/time: 07/16/23 16:33
Received date/time: 07/21/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2100586	1	07/24/23 13:36	07/24/23 15:05	ARD	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2102103	1	07/27/23 15:09	07/27/23 15:09	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2099412	1	07/22/23 20:31	07/22/23 20:31	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2103453	1	07/28/23 11:13	07/28/23 11:13	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2099164	1	07/22/23 11:40	07/22/23 11:40	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2100018	1	07/24/23 13:33	07/24/23 13:33	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2100018	10	07/24/23 13:47	07/24/23 13:47	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2100753	1	07/26/23 23:54	07/29/23 09:26	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2100182	1	07/25/23 07:50	08/01/23 14:57	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2100187	1	07/24/23 17:45	08/01/23 17:53	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	955	T8	13.3	1	07/24/2023 15:05	WG2100586

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity,Carbonate	U		8.45	20.0	1	07/27/2023 15:09	WG2102103

Sample Narrative:
L1637911-01 WG2102103: Endpoint pH 4.5 Headpace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.702		0.0500	0.100	1	07/22/2023 20:31	WG2099412

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.65	T8	1	07/28/2023 11:13	WG2103453

Sample Narrative:
L1637911-01 WG2103453: 7.65 at 25.5C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	1210		10.0	1	07/22/2023 11:40	WG2099164

Sample Narrative:
L1637911-01 WG2099164: at 25C

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Fluoride	0.125	J	0.0640	0.150	1	07/24/2023 13:33	WG2100018
Sulfate	488		5.94	50.0	10	07/24/2023 13:47	WG2100018

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	07/29/2023 09:26	WG2100753

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.372		0.00440	0.0100	1	08/01/2023 14:57	WG2100182
Barium	0.0640		0.000736	0.00500	1	08/01/2023 14:57	WG2100182
Beryllium	U		0.000330	0.00200	1	08/01/2023 14:57	WG2100182
Cadmium	U		0.000479	0.00200	1	08/01/2023 14:57	WG2100182
Calcium	130		0.0793	1.00	1	08/01/2023 14:57	WG2100182
Chromium	U		0.00140	0.0100	1	08/01/2023 14:57	WG2100182
Copper	0.0633		0.00368	0.0100	1	08/01/2023 14:57	WG2100182

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	2.74		0.0180	0.100	1	08/01/2023 14:57	WG2100182
Lead	0.0382		0.00299	0.00600	1	08/01/2023 14:57	WG2100182
Magnesium	70.7		0.0853	1.00	1	08/01/2023 14:57	WG2100182
Manganese	0.0762		0.000934	0.0100	1	08/01/2023 14:57	WG2100182
Nickel	0.685		0.00161	0.0100	1	08/01/2023 14:57	WG2100182
Potassium	3.74		0.261	2.00	1	08/01/2023 14:57	WG2100182
Selenium	U		0.00735	0.0100	1	08/01/2023 14:57	WG2100182
Sodium	31.7		0.504	3.00	1	08/01/2023 14:57	WG2100182

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony	0.00485		0.00103	0.00400	1	08/01/2023 17:53	WG2100187
Thallium	0.00735		0.000121	0.00200	1	08/01/2023 17:53	WG2100187
Uranium	0.0574		0.0000789	0.00100	1	08/01/2023 17:53	WG2100187
Vanadium	0.00104	J	0.000664	0.00500	1	08/01/2023 17:53	WG2100187
Zinc	0.719		0.00302	0.0250	1	08/01/2023 17:53	WG2100187

Method Blank (MB)

(MB) R3952539-1 07/24/23 15:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U	J	10.0	10.0

L1637486-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1637486-08 07/24/23 15:05 • (DUP) R3952539-3 07/24/23 15:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	860	867	1	0.773		5

L1637486-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1637486-12 07/24/23 15:05 • (DUP) R3952539-4 07/24/23 15:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1830	2270	1	21.5	J3	5

Laboratory Control Sample (LCS)

(LCS) R3952539-2 07/24/23 15:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8610	97.8	77.3-123	

Method Blank (MB)

(MB) R3953677-2 07/27/23 14:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1637911-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1637911-01 07/27/23 15:09 • (DUP) R3953677-3 07/27/23 15:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headpace

DUP: Endpoint pH 4.5

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

QUALITY CONTROL SUMMARY

L1637911-01

Method Blank (MB)

(MB) R3951628-1 07/22/23 19:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1637579-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1637579-02 07/22/23 19:54 • (DUP) R3951628-3 07/22/23 19:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.276	0.278	1	0.722		20

L1637828-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1637828-03 07/22/23 20:26 • (DUP) R3951628-5 07/22/23 20:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3951628-2 07/22/23 19:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.61	104	90.0-110	

L1637579-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1637579-02 07/22/23 19:54 • (MS) R3951628-4 07/22/23 19:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.276	2.95	107	1	90.0-110	

L1637828-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1637828-03 07/22/23 20:26 • (MS) R3951628-6 07/22/23 20:28 • (MSD) R3951628-7 07/22/23 20:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.55	2.57	102	103	1	90.0-110			0.781	20

L1637125-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1637125-01 07/28/23 11:13 • (DUP) R3954004-2 07/28/23 11:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.46	7.44	1	0.268		1

Sample Narrative:
OS: 7.46 at 25.8C
DUP: 7.44 at 25.1C

L1638969-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1638969-01 07/28/23 11:13 • (DUP) R3954004-3 07/28/23 11:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	9.73	9.74	1	0.103		1

Sample Narrative:
OS: 9.73 at 25C
DUP: 9.74 at 25C

Laboratory Control Sample (LCS)

(LCS) R3954004-1 07/28/23 11:13

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10.03 at 23.9C

Method Blank (MB)

(MB) R3951552-1 07/22/23 11:40

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1637556-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1637556-01 07/22/23 11:40 • (DUP) R3951552-3 07/22/23 11:40

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	7860	7990	1	1.64		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3951552-2 07/22/23 11:40

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	734	100	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3954445-1 07/24/23 11:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1638368-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-15 07/24/23 14:00 • (DUP) R3954445-3 07/24/23 14:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.32	1.28	1	2.80		15
Sulfate	96.4	96.0	1	0.498		15

L1638368-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-21 07/24/23 16:27 • (DUP) R3954445-6 07/24/23 16:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.982	0.938	1	4.60		15
Sulfate	102	103	1	0.470		15

Laboratory Control Sample (LCS)

(LCS) R3954445-2 07/24/23 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.46	106	80.0-120	
Sulfate	40.0	40.0	100	80.0-120	

L1638368-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638368-15 07/24/23 14:00 • (MS) R3954445-4 07/24/23 14:26 • (MSD) R3954445-5 07/24/23 15:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	1.32	6.46	6.50	103	104	1	80.0-120			0.579	15
Sulfate	50.0	96.4	143	145	94.0	97.3	1	80.0-120			1.17	15

L1638368-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1638368-21 07/24/23 16:27 • (MS) R3954445-7 07/24/23 16:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	0.982	6.18	104	1	80.0-120	
Sulfate	50.0	102	151	96.4	1	80.0-120	

Method Blank (MB)

(MB) R3954322-1 07/29/23 09:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3954322-2 07/29/23 09:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00266	88.6	80.0-120	

L1638026-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638026-03 07/29/23 09:14 • (MS) R3954322-3 07/29/23 09:17 • (MSD) R3954322-4 07/29/23 09:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00301	0.00291	100	97.0	1	75.0-125			3.56	20

Method Blank (MB)

(MB) R3955584-1 08/01/23 14:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00440	0.0100
Barium	U		0.000736	0.00500
Beryllium	U		0.000330	0.00200
Cadmium	U		0.000479	0.00200
Calcium	U		0.0793	1.00
Chromium	U		0.00140	0.0100
Copper	U		0.00368	0.0100
Iron	U		0.0180	0.100
Lead	U		0.00299	0.00600
Magnesium	U		0.0853	1.00
Manganese	U		0.000934	0.0100
Nickel	U		0.00161	0.0100
Potassium	0.276	J	0.261	2.00
Selenium	0.00897	J	0.00735	0.0100
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3955584-2 08/01/23 14:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	0.977	97.7	80.0-120	
Barium	1.00	1.01	101	80.0-120	
Beryllium	1.00	0.987	98.7	80.0-120	
Cadmium	1.00	0.965	96.5	80.0-120	
Calcium	10.0	9.94	99.4	80.0-120	
Chromium	1.00	0.960	96.0	80.0-120	
Copper	1.00	0.990	99.0	80.0-120	
Iron	10.0	9.73	97.3	80.0-120	
Lead	1.00	0.962	96.2	80.0-120	
Magnesium	10.0	9.78	97.8	80.0-120	
Manganese	1.00	0.974	97.4	80.0-120	
Nickel	1.00	0.990	99.0	80.0-120	
Potassium	10.0	9.39	93.9	80.0-120	
Selenium	1.00	1.01	101	80.0-120	
Sodium	10.0	9.93	99.3	80.0-120	

L1638400-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638400-01 08/01/23 14:47 • (MS) R3955584-4 08/01/23 14:52 • (MSD) R3955584-5 08/01/23 14:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	U	1.01	1.01	101	101	1	75.0-125			0.0430	20
Barium	1.00	0.0963	1.09	1.09	99.6	99.5	1	75.0-125			0.111	20
Beryllium	1.00	U	0.985	0.985	98.5	98.5	1	75.0-125			0.0275	20
Cadmium	1.00	U	0.980	0.978	98.0	97.8	1	75.0-125			0.233	20
Calcium	10.0	79.6	87.1	86.8	74.7	71.9	1	75.0-125	V	V	0.326	20
Chromium	1.00	U	0.958	0.956	95.8	95.6	1	75.0-125			0.261	20
Copper	1.00	U	0.990	0.997	99.0	99.7	1	75.0-125			0.686	20
Iron	10.0	0.226	9.91	9.94	96.8	97.2	1	75.0-125			0.366	20
Lead	1.00	0.00478	0.978	0.982	97.3	97.7	1	75.0-125			0.368	20
Magnesium	10.0	36.2	45.0	44.9	87.7	86.5	1	75.0-125			0.273	20
Manganese	1.00	0.0772	1.04	1.04	96.1	96.1	1	75.0-125			0.0453	20
Nickel	1.00	U	0.988	0.987	98.8	98.7	1	75.0-125			0.0729	20
Potassium	10.0	2.12	11.2	11.2	90.9	91.2	1	75.0-125			0.289	20
Selenium	1.00	U	1.04	1.04	104	104	1	75.0-125			0.227	20
Sodium	10.0	27.8	36.0	36.0	82.4	81.8	1	75.0-125			0.168	20

Method Blank (MB)

(MB) R3955470-1 08/01/23 16:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00103	0.00400
Thallium	U		0.000121	0.00200
Uranium	U		0.0000789	0.00100
Vanadium	U		0.000664	0.00500
Zinc	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R3955470-2 08/01/23 16:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0508	102	80.0-120	
Thallium	0.0500	0.0490	98.1	80.0-120	
Uranium	0.0500	0.0493	98.5	80.0-120	
Vanadium	0.0500	0.0499	99.7	80.0-120	
Zinc	0.0500	0.0521	104	80.0-120	

L1637961-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1637961-02 08/01/23 16:58 • (MS) R3955470-4 08/01/23 17:05 • (MSD) R3955470-5 08/01/23 17:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0518	0.0515	104	103	1	75.0-125			0.516	20
Thallium	0.0500	U	0.0508	0.0515	102	103	1	75.0-125			1.25	20
Uranium	0.0500	U	0.0505	0.0509	101	102	1	75.0-125			0.753	20
Vanadium	0.0500	0.00175	0.0536	0.0529	104	102	1	75.0-125			1.33	20
Zinc	0.0500	U	0.0490	0.0501	98.1	100	1	75.0-125			2.14	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address
Energy Fuels Resources
225 Union Blvd
Suite 600
Lakewood, CO 80228

Billing Information
Accounts Payable
225 Union Blvd
Suite 600
Lakewood, CO 80228

Report to: Kathy Weinel
Email To: KWeinel@energyfuels.com
Project Description: PINYON PLAIN SUMP DISCHARGE
City/State Collected:
Please Circle: PT MT CT ET
Phone:
Client Project #
Lab Project # ENEFUELCO
Collected by (print): Matt Germansen
Site/Facility ID #
P.O. #
Collected by (signature):
Immediately Packed on Ice N ___ Y X
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #
Date Results Needed

Pres Chk: L2 L2 L2 L2 L2 L2

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	ALK,FL,PH,COND,SULF 125mlHDPE-NoPres	ASICP,BAICP,BEICP,CA 250mlHDPE-HNO3	GROSS ALPHA 500mlHDPE-Add HNO3	NO2NO3 250mlHDPE-H2SO4	RA-226-903.0,U-ISO 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
~~Sump-1470_07162023~~		GW				4									
Sump-1470_07162023	Grab	GW	1470	7/16/23	1633	4	X	X		X			X		
		GW				4	X	X		X			X		-01
		GW				4	X	X		X			X		
Sump-1470_07162023	Grab	NPW	1470	7/16/23	1633	4	X	X		X			X		
		NPW				3			X		X	X			
		NPW				3			X		X	X			
		NPW				3			X		X	X			
						3			X		X	X			

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:
pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____
Tracking #

Relinquished by : (Signature) — Date: 7/16/23 Time: 1748
Received by: (Signature)
Trip Blank Received: Yes (No) HCL / MeoH TBR

Relinquished by : (Signature) — Date: Time:
Received by: (Signature)
Temp: 4.3+0 =4.3 °C Bottles Received: 7

Relinquished by : (Signature) — Date: Time:
Received for lab by: (Signature)
Date: 7.21.23 Time: 0800

If preservation required by Login: Date/Time
Hold:
Condition: NCF / (OK)

Sample Receipt Checklist
COC Seal Present/Intact: __NP (Y) __N
COC Signed/Accurate: (Y) __N
Bottles arrive intact: (Y) __N
Correct bottles used: (Y) __N
Sufficient volume sent: (Y) __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: (Y) __N

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Submitting a sample via this chain of custody constitutes acknowledgement and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1685791
A191

Acctnum: ENEFUELCO
Template: T215492
Prelogin: P999074
PM: 732 - Donna Eidson
PB: CA 5/12/23
Shipped Via: FedEX Ground

ANALYTICAL REPORT

May 25, 2023

Energy Fuels Resources

Sample Delivery Group:	L1614261
Samples Received:	05/09/2023
Project Number:	
Description:	Pinyon Plain Mine Aquifer Protection Permit

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

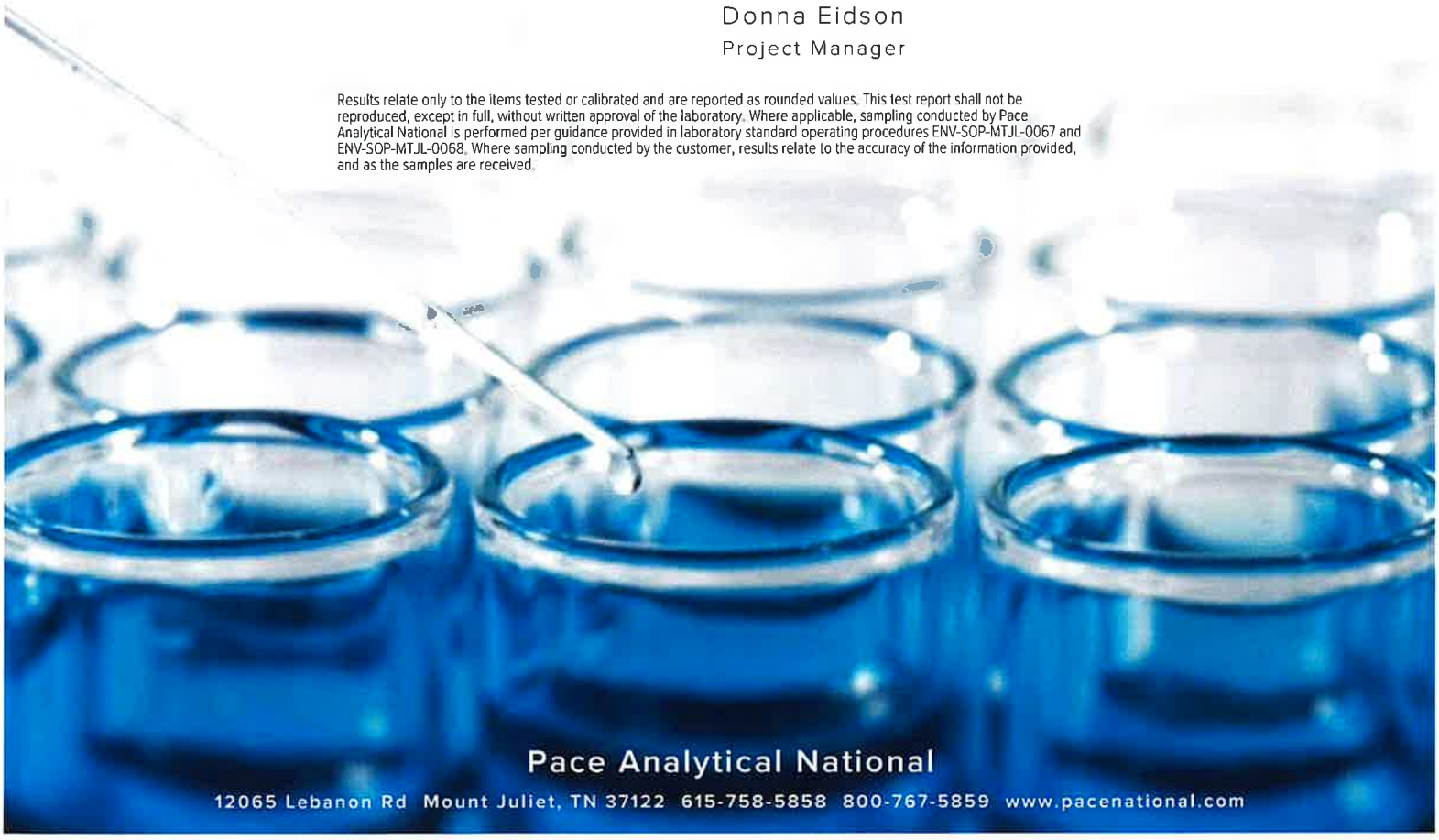

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-01_05082023_L1614261-01_GW

Collected by | Collected date/time: 05/08/23 10:26 | Received date/time: 05/09/23 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG2060896	1	05/16/23 15:49	05/16/23 15:49	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2056976	1	05/10/23 23:53	05/10/23 23:53	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2062599	1	05/19/23 12:00	05/19/23 12:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2063211	1	05/20/23 12:56	05/20/23 12:56	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 00:50	05/24/23 00:50	EIG	Allen, TX
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 09:55	05/24/23 09:55	EIG	Allen, TX
Mercury by Method 7470A	WG2057821	1	05/17/23 17:24	05/21/23 17:23	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2057541	1	05/17/23 08:10	05/18/23 01:58	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2057543	1	05/16/23 07:40	05/16/23 11:31	SJM	Mt. Juliet, TN

MW-02_05062023_L1614261-02_GW

Collected by | Collected date/time: 05/07/23 15:54 | Received date/time: 05/09/23 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG2060926	1	05/16/23 15:52	05/16/23 15:52	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2056976	1	05/10/23 23:54	05/10/23 23:54	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2064173	1	05/22/23 16:30	05/22/23 16:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2063211	1	05/20/23 12:56	05/20/23 12:56	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 01:10	05/24/23 01:10	EIG	Allen, TX
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 10:14	05/24/23 10:14	EIG	Allen, TX
Mercury by Method 7470A	WG2057821	1	05/17/23 17:24	05/21/23 17:25	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2057541	1	05/17/23 08:10	05/18/23 02:00	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2057543	1	05/16/23 07:40	05/16/23 11:34	SJM	Mt. Juliet, TN

MW-03_05072023_L1614261-03_GW

Collected by | Collected date/time: 05/07/23 12:14 | Received date/time: 05/09/23 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG2060926	1	05/16/23 15:56	05/16/23 15:56	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2056976	1	05/10/23 23:59	05/10/23 23:59	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2064173	1	05/22/23 16:30	05/22/23 16:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2063211	1	05/20/23 12:56	05/20/23 12:56	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 01:30	05/24/23 01:30	EIG	Allen, TX
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 10:34	05/24/23 10:34	EIG	Allen, TX
Mercury by Method 7470A	WG2057821	1	05/17/23 17:24	05/21/23 17:34	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2057541	1	05/17/23 08:10	05/18/23 02:03	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2057543	1	05/16/23 07:40	05/16/23 11:37	SJM	Mt. Juliet, TN

MW-65_05072023_L1614261-04_GW

Collected by | Collected date/time: 05/07/23 12:14 | Received date/time: 05/09/23 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG2060926	1	05/16/23 16:01	05/16/23 16:01	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2056976	1	05/11/23 00:00	05/11/23 00:00	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2062599	1	05/19/23 12:00	05/19/23 12:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2063211	1	05/20/23 12:56	05/20/23 12:56	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 01:50	05/24/23 01:50	EIG	Allen, TX
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 10:54	05/24/23 10:54	EIG	Allen, TX
Mercury by Method 7470A	WG2057821	1	05/17/23 17:24	05/21/23 17:36	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2057541	1	05/17/23 08:10	05/18/23 02:06	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2057543	1	05/16/23 07:40	05/16/23 11:41	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

RW-01_05072023 L1614261-05 GW

	Collected by	Collected date/time	Received date/time
		05/07/23 16:55	05/09/23 10:10

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 2320 B-2011	WG2060926	1	05/16/23 16:06	05/16/23 16:06	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2058134	1	05/11/23 19:03	05/11/23 19:03	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2064173	1	05/22/23 16:30	05/22/23 16:30	ARD	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2063211	1	05/20/23 12:56	05/20/23 12:56	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 02:10	05/24/23 02:10	EIG	Allen, TX
Wet Chemistry by Method 9056A	WG2065115	1	05/24/23 11:13	05/24/23 11:13	EIG	Allen, TX
Mercury by Method 7470A	WG2057821	1	05/17/23 17:24	05/21/23 17:38	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2057541	1	05/17/23 08:10	05/18/23 01:20	SPL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2057543	1	05/16/23 07:40	05/16/23 10:57	SJM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Carbonate	U		8.45	20.0	1	05/16/2023 16:06	WG2060926

Sample Narrative:
L1614261-05 WG2060926: Endpoint pH 4.5

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.113		0.0500	0.100	1	05/11/2023 19:03	WG2058134

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.41	T8	1	05/22/2023 16:30	WG2064173

Sample Narrative:
L1614261-05 WG2064173: 8.41 at 20.3C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	460		10.0	1	05/20/2023 12:56	WG2063211

Sample Narrative:
L1614261-05 WG2063211: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.425	J	0.198	0.500	1	05/24/2023 02:10	WG2065115
Sulfate	18.9		0.199	0.700	1	05/24/2023 11:13	WG2065115

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury,Dissolved	U		0.000100	0.000200	1	05/21/2023 17:38	WG2057821

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic,Dissolved	U		0.00440	0.0100	1	05/18/2023 01:20	WG2057541
Barium,Dissolved	0.0843		0.000736	0.00500	1	05/18/2023 01:20	WG2057541
Beryllium,Dissolved	U		0.000330	0.00200	1	05/18/2023 01:20	WG2057541
Cadmium,Dissolved	U		0.000479	0.00200	1	05/18/2023 01:20	WG2057541
Calcium,Dissolved	43.6		0.0793	1.00	1	05/18/2023 01:20	WG2057541
Chromium,Dissolved	U		0.00140	0.0100	1	05/18/2023 01:20	WG2057541
Lead,Dissolved	U		0.00299	0.00600	1	05/18/2023 01:20	WG2057541
Magnesium,Dissolved	30.4		0.0853	1.00	1	05/18/2023 01:20	WG2057541
Nickel,Dissolved	0.0239		0.00161	0.0100	1	05/18/2023 01:20	WG2057541
Potassium,Dissolved	2.56		0.261	2.00	1	05/18/2023 01:20	WG2057541
Selenium,Dissolved	U		0.00735	0.0100	1	05/18/2023 01:20	WG2057541
Sodium,Dissolved	6.81		0.504	3.00	1	05/18/2023 01:20	WG2057541

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony,Dissolved	U		0.00103	0.00400	1	05/16/2023 10:57	WG2057543
Thallium,Dissolved	U		0.000121	0.00200	1	05/16/2023 10:57	WG2057543
Uranium,Dissolved	0.0136		0.0000789	0.00100	1	05/16/2023 10:57	WG2057543

Method Blank (MB)

(MB) R3925730-2 05/16/23 15:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1614522-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1614522-01 05/16/23 15:54 • (DUP) R3925730-3 05/16/23 16:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1615283-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1615283-01 05/16/23 17:23 • (DUP) R3925730-4 05/16/23 17:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R3925710-2 05/16/23 15:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1614766-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1614766-01 05/16/23 16:15 • (DUP) R3925710-3 05/16/23 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1614908-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1614908-01 05/16/23 17:01 • (DUP) R3925710-4 05/16/23 17:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R3923369-1 05/10/23 23:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1614261-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1614261-02 05/10/23 23:54 • (DUP) R3923369-3 05/10/23 23:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1614411-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1614411-02 05/11/23 00:27 • (DUP) R3923369-8 05/11/23 00:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	4.86	4.86	2	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3923369-2 05/10/23 23:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.56	102	90.0-110	

L1614261-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-02 05/10/23 23:54 • (MS) R3923369-4 05/10/23 23:56 • (MSD) R3923369-5 05/10/23 23:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.63	2.66	105	106	1	90.0-110			1.13	20

L1614411-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1614411-02 05/11/23 00:27 • (MS) R3923369-9 05/11/23 00:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	4.86	7.52	106	2	90.0-110	

Method Blank (MB)

(MB) R3923826-1 05/11/23 19:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1614800-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1614800-05 05/11/23 19:17 • (DUP) R3923826-3 05/11/23 19:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.331	0.333	1	0.602		20

L1614910-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1614910-07 05/11/23 19:37 • (DUP) R3923826-6 05/11/23 19:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3923826-2 05/11/23 19:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.61	104	90.0-110	

L1614800-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614800-05 05/11/23 19:17 • (MS) R3923826-4 05/11/23 19:19 • (MSD) R3923826-5 05/11/23 19:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.331	2.93	2.95	104	105	1	90.0-110			0.680	20

L1614910-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1614910-07 05/11/23 19:37 • (MS) R3923826-7 05/11/23 19:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.62	105	1	90.0-110	

L1614261-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1614261-01 05/19/23 12:00 • (DUP) R3926986-2 05/19/23 12:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.99	8.03	1	0.499		1

Sample Narrative:
OS: 7.99 at 19.1C
DUP: 8.03 at 19.5C

L1617894-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1617894-01 05/19/23 12:00 • (DUP) R3926986-3 05/19/23 12:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.29	7.32	1	0.411		1

Sample Narrative:
OS: 7.29 at 19.1C
DUP: 7.32 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R3926986-1 05/19/23 12:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10.01 at 20.5C

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

L1614261-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1614261-02 05/22/23 16:30 • (DUP) R3927925-2 05/22/23 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.13	8.17	1	0.491		1

Sample Narrative:
OS: 8.13 at 21.4C
DUP: 8.17 at 21.3C

L1618122-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1618122-03 05/22/23 16:30 • (DUP) R3927925-3 05/22/23 16:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.89	6.91	1	0.290		1

Sample Narrative:
OS: 6.89 at 20.6C
DUP: 6.91 at 20.6C

Laboratory Control Sample (LCS)

(LCS) R3927925-1 05/22/23 16:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:
LCS: 9.99 at 21C

Method Blank (MB)

(MB) R3927299-1 05/20/23 12:56

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1614908-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1614908-01 05/20/23 12:56 • (DUP) R3927299-3 05/20/23 12:56

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	385	383	1	0.521		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1616520-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1616520-01 05/20/23 12:56 • (DUP) R3927299-4 05/20/23 12:56

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	382	381	1	0.262		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3927299-2 05/20/23 12:56

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	356	109	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3928953-1 05/24/23 00:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.198	0.500
Sulfate	U		0.199	0.700

Laboratory Control Sample (LCS)

(LCS) R3928953-2 05/24/23 00:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	5.00	5.60	112	80.0-120	
Sulfate	5.00	4.89	97.7	80.0-120	

L1614261-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-03 05/24/23 01:30 • (MS) R3928953-3 05/24/23 12:13 • (MSD) R3928953-4 05/24/23 12:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	U	5.45	5.47	109	109	1	80.0-120			0.403	20

L1614261-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-03 05/24/23 10:34 • (MS) R3928953-5 05/24/23 12:53 • (MSD) R3928953-6 05/24/23 13:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	100	117	219	229	102	112	1	80.0-120			4.50	20

L1614261-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-05 05/24/23 02:10 • (MS) R3928953-7 05/24/23 13:32 • (MSD) R3928953-8 05/24/23 13:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	0.425	5.55	5.75	103	106	1	80.0-120			3.44	20

L1614261-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-05 05/24/23 11:13 • (MS) R3928953-9 05/24/23 14:12 • (MSD) R3928953-10 05/24/23 14:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	25.0	18.9	43.5	43.3	98.4	97.5	1	80.0-120			0.518	20

Method Blank (MB)

(MB) R3927460-1 05/21/23 15:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3927460-2 05/21/23 15:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00314	105	80.0-120	

L1614693-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614693-02 05/21/23 15:46 • (MS) R3927460-3 05/21/23 15:49 • (MSD) R3927460-4 05/21/23 15:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.000547	0.000517	18.2	17.2	1	75.0-125	J6	J6	5.64	20

Method Blank (MB)

(MB) R3926189-1 05/18/23 01:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.00440	0.0100
Barium,Dissolved	U		0.000736	0.00500
Beryllium,Dissolved	U		0.000330	0.00200
Cadmium,Dissolved	U		0.000479	0.00200
Calcium,Dissolved	0.0922	J	0.0793	1.00
Chromium,Dissolved	U		0.00140	0.0100
Lead,Dissolved	U		0.00299	0.00600
Magnesium,Dissolved	U		0.0853	1.00
Nickel,Dissolved	U		0.00161	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3926189-2 05/18/23 01:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	1.00	0.977	97.7	80.0-120	
Barium,Dissolved	1.00	1.02	102	80.0-120	
Beryllium,Dissolved	1.00	1.00	100	80.0-120	
Cadmium,Dissolved	1.00	0.985	98.5	80.0-120	
Calcium,Dissolved	10.0	9.95	99.5	80.0-120	
Chromium,Dissolved	1.00	1.03	103	80.0-120	
Lead,Dissolved	1.00	0.980	98.0	80.0-120	
Magnesium,Dissolved	10.0	9.97	99.7	80.0-120	
Nickel,Dissolved	1.00	1.00	100	80.0-120	
Potassium,Dissolved	10.0	9.79	97.9	80.0-120	
Selenium,Dissolved	1.00	0.994	99.4	80.0-120	
Sodium,Dissolved	10.0	10.3	103	80.0-120	

L1614379-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614379-22 05/18/23 01:47 • (MS) R3926189-4 05/18/23 01:53 • (MSD) R3926189-5 05/18/23 01:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1.00	0.0166	0.993	1.01	97.7	99.3	1	75.0-125			1.67	20
Barium,Dissolved	1.00	0.0484	1.02	1.04	97.6	99.0	1	75.0-125			1.39	20
Beryllium,Dissolved	1.00	U	0.971	0.983	97.1	98.3	1	75.0-125			1.23	20

L1614379-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614379-22 05/18/23 01:47 • (MS) R3926189-4 05/18/23 01:53 • (MSD) R3926189-5 05/18/23 01:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium,Dissolved	1.00	0.000753	0.980	0.991	97.9	99.0	1	75.0-125			1.11	20
Calcium,Dissolved	10.0	112	118	120	64.5	78.1	1	75.0-125	V		1.14	20
Chromium,Dissolved	1.00	U	1.00	1.01	100	101	1	75.0-125			0.804	20
Lead,Dissolved	1.00	0.00308	0.956	0.971	95.3	96.8	1	75.0-125			1.59	20
Magnesium,Dissolved	10.0	36.7	44.9	45.5	81.9	87.8	1	75.0-125			1.31	20
Nickel,Dissolved	1.00	0.00210	0.982	0.992	98.0	99.0	1	75.0-125			1.03	20
Potassium,Dissolved	10.0	3.03	12.5	12.6	95.0	96.0	1	75.0-125			0.797	20
Selenium,Dissolved	1.00	U	0.998	1.00	99.8	100	1	75.0-125			0.307	20
Sodium,Dissolved	10.0	38.6	47.2	47.6	86.0	90.3	1	75.0-125			0.906	20

Method Blank (MB)

(MB) R3925324-1 05/16/23 10:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony,Dissolved	U		0.00103	0.00400
Thallium,Dissolved	U		0.000121	0.00200
Uranium,Dissolved	U		0.0000789	0.00100

Laboratory Control Sample (LCS)

(LCS) R3925324-2 05/16/23 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony,Dissolved	0.0500	0.0482	96.5	80.0-120	
Thallium,Dissolved	0.0500	0.0498	99.6	80.0-120	
Uranium,Dissolved	0.0500	0.0482	96.4	80.0-120	

L1614261-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1614261-05 05/16/23 10:57 • (MS) R3925324-4 05/16/23 11:03 • (MSD) R3925324-5 05/16/23 11:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	0.0500	U	0.0487	0.0487	97.3	97.4	1	75.0-125			0.101	20
Thallium,Dissolved	0.0500	U	0.0466	0.0495	93.2	98.9	1	75.0-125			5.92	20
Uranium,Dissolved	0.0500	0.0136	0.0591	0.0621	91.0	96.9	1	75.0-125			4.87	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

Arkansas	88-0647	Kansas	E10388
Florida	E871118	Texas	T104704232-22-37
Iowa	408	Oklahoma	8727
Louisiana	30686		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Energy Fuels Resources

3549 South Cheryl Dr
Flagstaff, AZ 86005

Billing Information:
225 Union Blvd.
Suite 600
Lakewood, CO 80228

Report to:
Kathy Weinel

Email To:
kweinel@energyfuels.com

Project Description

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #

Collected by (print):

Site/Facility ID #

P.O #

Collected by (signature)

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
00122018

Date Results Needed

Immediately Packed on Ice N Y

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1614261
A137

Tal

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	ALKCA 125ml HDPE-NoPres	FLUORIDE,SULFATE 125ml HDPE-NoPres	GROSS ALPHA 500ml HDPE-add HNO3	Metals (Field Filter) 250ml HDPE-HNO3	NO2NO3 250ml HDPE-H2SO4	PH 125ml HDPE-NoPres	RA-226 1L-HDPE-add HNO3	RA-228 1L-HDPE-add HNO3	TDS 1L-HDPE- add-HNO3	Remarks	Sample # (lab only)
MW-01_05082023	Grab	GW		5/8/23	1026	4	X	X		X	X	X					-01
MW-02_05062023	Grab	GW		5/6/23	1554	4	X	X		X	X	X					-02
MW-03_05072023	Grab	GW		5/7/23	1214	4	X	X		X	X	X					-03
MW-65_05072023	Grab	GW		5/7/23	1214	4	X	X		X	X	X					-04
							X	X		X	X	X					
MW-01_05082023	Grab	GW		5/8/23	1026	3			X				X	X	X		
MW-02_05062023	Grab	GW		5/6/23	1554	3			X				X	X	X		
MW-03_05072023	Grab	GW		5/7/23	1214	3			X				X	X	X		
MW-65_05072023	Grab	GW		5/7/23	1214	3			X				X	X	X		
									X				X	X	X		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
GW Sampling

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature) — Date: 5/8/23 — Time: 1440

Received by: (Signature)

Trip Blank Received: Yes / No (0) HCL / MeoH TSP

Relinquished by: (Signature) — Date: — Time:

Received by: (Signature)

Temp: °C Bottles Received: 35

If preservation required by Login: Date/Time

Relinquished by: (Signature) — Date: — Time:

Received for lab by: (Signature) — Date: 5/9/23 — Time: 1010

Hold:

Condition: NCF (OK)

Company Name/Address:
Energy Fuels Resources

3549 South Cheryl Dr
Flagstaff, AZ 86005

Report to:
Kathy Weinel

Project Description:

Phone:

Collected by (print):

Collected by (signature):

Immediately Packed on Ice N Y

Billing Information:
225 Union Blvd.
Suite 600
Lakewood, CO 80228

Email To
kweinel@energyfuels.com

City/State Collected

Please Circle: PT MT CT ET

Client Project #

Site/Facility ID #

Lab Project #

P.O. #

Quote #
00122018

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Phone 615-758-5858 Toll Free 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1614261

Table #

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Pres Chk	ALKCA 125ml HDPE-NoPres	FLUORIDE,SULFATE 125ml HDPE-NoPres	GROSS ALPHA 500ml HDPE-add HNO3	Metals (Field Filter) 250ml HDPE-HNO3	NO2NO3 250ml HDPE-H2SO4	PH 125ml HDPE-NoPres	RA-226 1L-HDPE-add HNO3	RA-228 1L-HDPE-add HNO3	TDS 1L-HDPE- add-HNO3	Remarks	Sample # (lab only)
RW-01_05072023	Grab	GW		5/7/23	1655	4		X	X		X	X	X					-05
								X	X		X	X	X					
								X	X		X	X	X					
								X	X		X	X	X					
								X	X		X	X	X					
RW-01_05072023	Grab	GW		5/7/23	1655	3				X				X	X	X		
										X				X	X	X		
										X				X	X	X		
										X				X	X	X		
										X				X	X	X		

Matrix
SS Soil AIR - Air F - Filter
GW Groundwater B - Bioassay
WW WasteWater
DW Drinking Water
OT Other ____

Remarks:
GW Sampling

pH ____ Temp ____

Flow ____ Other ____

Samples returned via:
_ UPS _ FedEx _ Courier

Tracking #

Relinquished by: (Signature) Date: 5/8/23 Time: 1440

Received by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Relinquished by: (Signature) Date: Time:

Received by: (Signature)

Temp: °C Bottles Received:

Relinquished by: (Signature) Date: Time:

Received for lab by: (Signature) Date: 5/9/23 Time: 1010

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

U1614261

Tracking Numbers	Temperature
UPS	9.4
UPS	17.1

ANALYTICAL REPORT

September 07, 2023

Energy Fuels Resources

Sample Delivery Group:	L1637914
Samples Received:	07/21/2023
Project Number:	
Description:	PINYON PLAIN SUMP DISCHARGE

Report To: Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

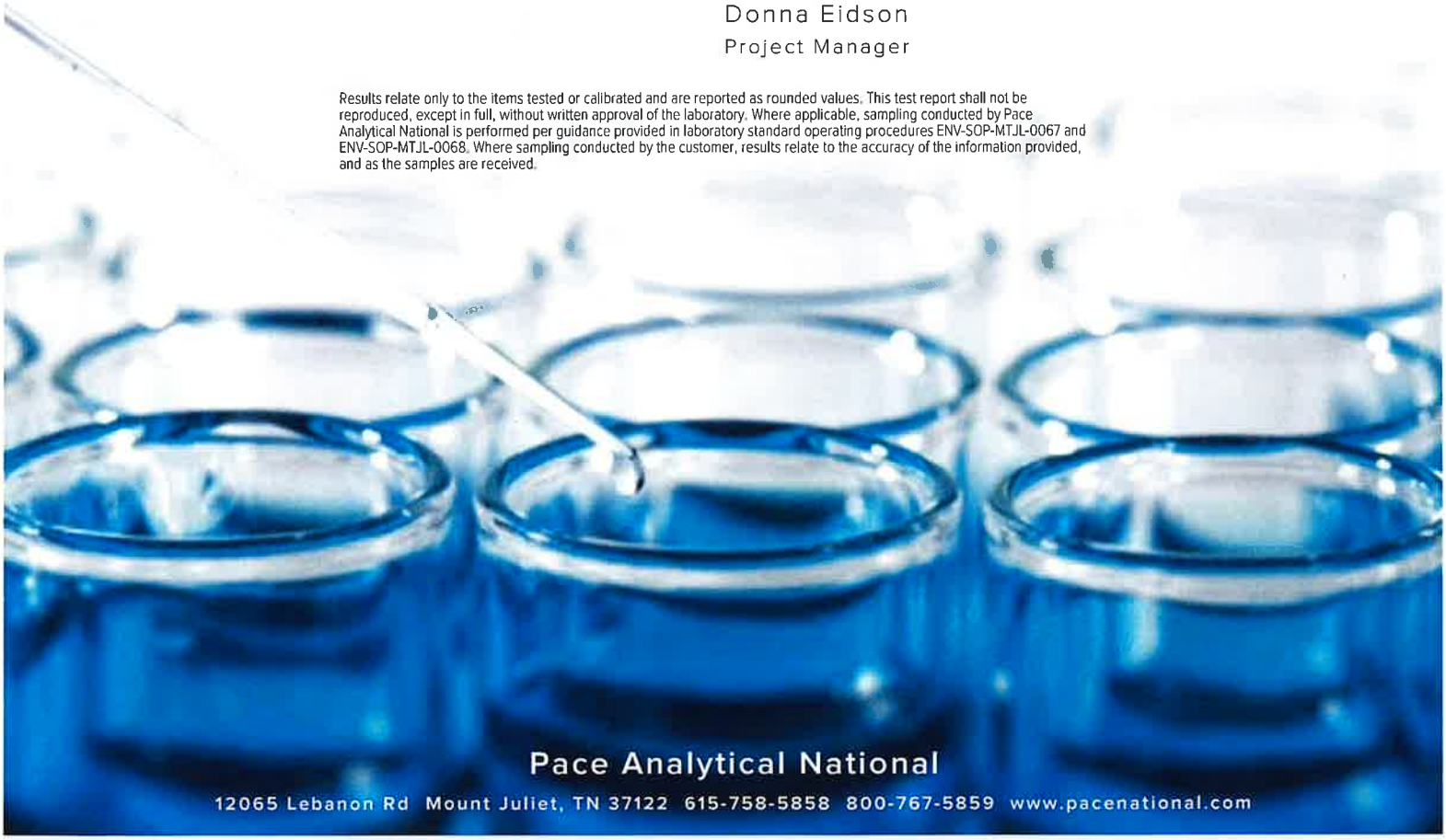

TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP-1470_07162023 L1637914-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
MG	07/16/23 16:33	07/21/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2099743	1	07/22/23 11:44	07/28/23 16:42	RRE	Mt. Juliet, TN
Radiochemistry by Method 903.0/9315	WG2100506	1	07/24/23 12:23	07/28/23 16:13	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2100790	1	07/24/23 20:57	08/07/23 16:54	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2099743	1	07/22/23 11:44	08/04/23 20:56	RRE	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2102390	1	07/28/23 22:24	08/04/23 20:56	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Radiochemistry by Method 900

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
GROSS ALPHA	212		18.8	7.94	07/28/2023 16:42	WG2099743

Radiochemistry by Method 903.0/9315

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Radium-226	10.7		1.23	0.287	07/28/2023 16:13	WG2100506
(T) Barium	*98.8*			*30.0-143*	*07/28/2023 16:13*	WG2100506

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.102	U	0.230	0.409	08/07/2023 16:54	WG2100790
(T) Barium	*118*			*30.0-143*	*08/07/2023 16:54*	WG2100790
(T) Yttrium	*117*			*30.0-136*	*08/07/2023 16:54*	WG2100790

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Adjusted Gross Alpha	151				08/04/2023 20:56	WG2099743

Radiochemistry by Method D3972 U-02

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
URANIUM-234	40.7		2.99	0.376	08/04/2023 20:56	WG2102390
URANIUM-235	2.14		0.690	0.263	08/04/2023 20:56	WG2102390
URANIUM-238	19.7		2.08	0.355	08/04/2023 20:56	WG2102390
(T) URANIUM-232	*64.6*			*30.0-110*	*08/04/2023 20:56*	WG2102390

Method Blank (MB)

(MB) R3967240-1 07/28/23 12:41

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
GROSS ALPHA	0.907	J	0.792	1.03

L1635461-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1635461-01 07/28/23 12:41 • (DUP) R3967240-3 07/28/23 12:41

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
GROSS ALPHA	8.46	4.66	5.51	6.04	2.12	5.51	1	33.5	0.474		20	3

Laboratory Control Sample (LCS)

(LCS) R3967240-2 07/28/23 12:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
GROSS ALPHA	15.0	14.5	96.5	80.0-120	

L1635881-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1635881-11 07/28/23 16:42 • (MS) R3967240-6 08/17/23 22:06 • (MSD) R3967240-7 08/17/23 22:06

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
GROSS ALPHA	15.0	3.88	17.3	21.0	89.7	114	1	70.0-130			19.0		20

Method Blank (MB)

(MB) R3955069-1 07/28/23 14:13

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.110	J	0.144	0.241
(T) Barium	*97.9*		*97.9*	

L1638259-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1638259-07 07/28/23 18:14 • (DUP) R3955069-5 07/28/23 15:13

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.575	0.299	0.217	0.571	0.593	0.217	1	0.785	0.00678	J	20	3
(T) Barium	*97.7*			*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R3955069-2 07/28/23 14:13

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	5.49	110	80.0-120	
(T) Barium			*94.5*		

L1638259-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638259-02 07/28/23 17:14 • (MS) R3955069-3 07/28/23 14:13 • (MSD) R3955069-4 07/28/23 14:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.181	19.4	21.2	95.8	105	1	75.0-125			9.27		20
(T) Barium		*99.8*			*103*	*100*							

Method Blank (MB)

(MB) R3962786-1 08/04/23 16:32

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.0428	U	0.152	0.295
(T) Barium	*92.5*		*92.5*	
(T) Yttrium	*96.7*		*96.7*	

L1637846-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1637846-01 08/07/23 16:54 • (DUP) R3962786-5 08/04/23 16:32

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	5.39	0.520	0.788	4.88	0.441	0.788	1	9.98	0.751		20	3
(T) Barium	*93.8*			*92.4*	*92.4*							
(T) Yttrium	*92.4*			*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R3962786-2 08/04/23 16:32

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.81	116	80.0-120	
(T) Barium			*82.0*		
(T) Yttrium			*102*		

L1637654-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1637654-01 08/07/23 16:54 • (MS) R3962786-3 08/04/23 16:32 • (MSD) R3962786-4 08/04/23 16:32

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.640	11.0	9.72	104	90.8	1	70.0-130			12.7		20
(T) Barium		*77.9*			*81.2*	*108*							
(T) Yttrium		*98.1*			*113*	*108*							

Method Blank (MB)

(MB) R3965650-1 08/04/23 20:56

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
URANIUM-234	0.626		0.209	0.118
URANIUM-235	0.181		0.112	0.0785
URANIUM-238	0.473		0.177	0.0785
(T) URANIUM-232	*49.0*		*49.0*	

L1636842-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1636842-15 08/04/23 20:56 • (DUP) R3965650-5 08/04/23 20:56

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
URANIUM-234	0.953	0.427	0.300	1.20	0.603	0.300	1	22.8	0.332		20	3
URANIUM-235	0.154	0.187	0.240	0.521	0.382	0.240	1	109	0.864		20	3
URANIUM-238	0.962	0.425	0.282	1.69	0.670	0.282	1	54.8	0.915		20	3
(T) URANIUM-232	*76.7*			*52.1*	*52.1*							

Laboratory Control Sample (LCS)

(LCS) R3965650-2 08/04/23 20:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
URANIUM-234	5.03	5.25	104	80.0-120	
URANIUM-238	4.90	5.59	114	80.0-120	
(T) URANIUM-232			*36.3*		

L1636842-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1636842-12 08/04/23 20:56 • (MS) R3965650-3 08/04/23 20:56 • (MSD) R3965650-4 08/04/23 20:56

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
URANIUM-234	20.1	37.4	58.4	62.6	104	125	1	75.0-125			6.86		20
URANIUM-238	19.6	10.4	31.8	34.4	109	123	1	75.0-125			8.07		20
(T) URANIUM-232		*49.5*			*49.6*	*53.6*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address: Energy Fuels Resources

Billing Information: Accounts Payable, 225 Union Blvd, Suite 600, Lakewood, CO 80228

Email To: KWelnel@energyfuels.com

City/State Collected:

Please Circle: PT MT CT ET

Client Project #

Lab Project # ENEFUELCO

Site/Facility ID #

P.O. #

Quote #

Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day

Date Results Needed

Immediately Packed on Ice N ___ Y ___

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	ALK,FL,PH,COND,SULF 125mlHDPE-NoPres	ASICP,BAICP,BEICP,CA 250mlHDPE-HNO3	GROSS ALPHA 500mlHDPE-Add HNO3	NO2NO3 250mlHDPE-H2SO4	RA-226-903.0,U-ISO 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres				Remarks	Sample # (lab only)
[illegible]		GW				4	X	X		X			X					
Sump-1470_07162023	Grab	GW	1470	7/16/23	1633	4	X	X		X			X					
		GW				4	X	X		X			X					
		GW				4	X	X		X			X					
Sump-1470_07162023	Grab	NPW	1470	7/16/23	1633	3			X		X	X						-01
		NPW				3			X		X	X						
		NPW				3			X		X	X						
		NPW				3			X		X	X						

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by: (Signature) — Date: 7/16/23 — Time: 1748 — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received for lab by: (Signature) — Date: 7/21/23 — Time: 0800

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: GUN 4.3+0 =4.3 Bottles Received: 7

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)

Pace — PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1679114

Table # A191

Acctnum: ENEFUELCO

Template: T215492

Prelogin: P999074

PM: 732 - Donna Eldson

PB: CA 5/12-23

Shipped Via: FedEX Ground

ANALYTICAL REPORT

August 18, 2023

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Energy Fuels Resources

Sample Delivery Group:	L1642533
Samples Received:	08/04/2023
Project Number:	
Description:	Pinyon Plain Mine GW Sampling

Report To: Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

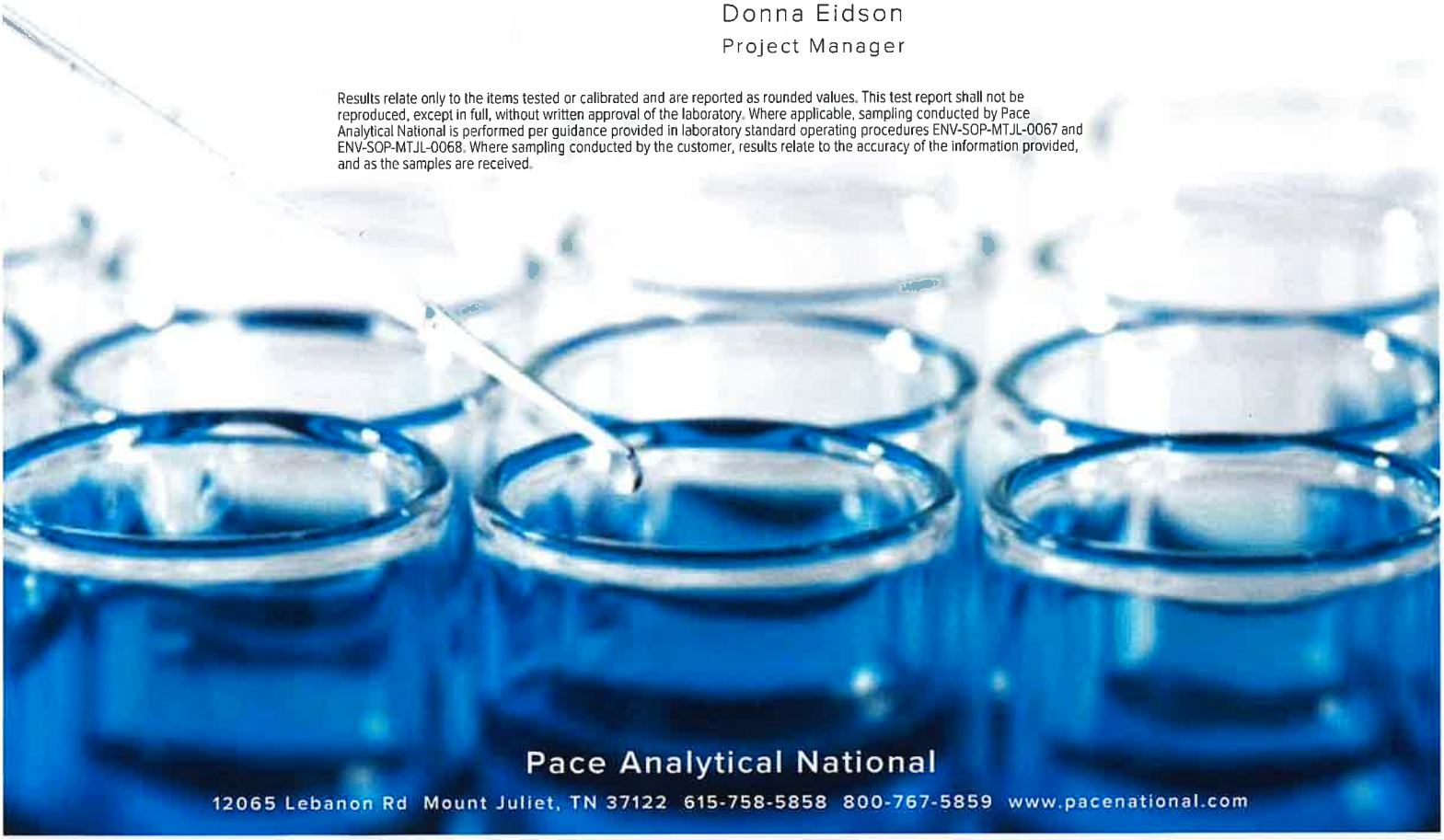

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-01_07312023 L1642533-01 GW

Collected by: M. Germansen | Collected date/time: 07/31/23 15:59 | Received date/time: 08/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2109032	1	08/07/23 10:13	08/07/23 18:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2115447	1	08/17/23 10:25	08/17/23 10:25	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2108356	1	08/05/23 22:21	08/05/23 22:21	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2114275	1	08/15/23 14:15	08/15/23 14:15	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2108162	1	08/08/23 10:45	08/08/23 10:45	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	1	08/04/23 22:02	08/04/23 22:02	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	5	08/04/23 22:15	08/04/23 22:15	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2109751	1	08/09/23 10:35	08/10/23 19:03	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2110281	1	08/10/23 12:23	08/18/23 01:22	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2110286	1	08/09/23 15:46	08/15/23 10:05	SJM	Mt. Juliet, TN

MW-02_08032023 L1642533-02 GW

Collected by: M. Germansen | Collected date/time: 08/03/23 13:14 | Received date/time: 08/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2111614	1	08/10/23 14:02	08/10/23 16:15	TQP	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2115447	1	08/17/23 10:31	08/17/23 10:31	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2108356	1	08/05/23 22:26	08/05/23 22:26	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2114275	1	08/15/23 14:15	08/15/23 14:15	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2108162	1	08/08/23 10:45	08/08/23 10:45	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	1	08/04/23 22:56	08/04/23 22:56	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2109751	1	08/09/23 10:35	08/10/23 19:05	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2110281	1	08/10/23 12:23	08/18/23 01:24	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2110286	1	08/09/23 15:46	08/15/23 10:18	SJM	Mt. Juliet, TN

MW-03_08022023 L1642533-03 GW

Collected by: M. Germansen | Collected date/time: 08/02/23 11:30 | Received date/time: 08/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2109032	1	08/07/23 10:13	08/07/23 18:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2115447	1	08/17/23 10:41	08/17/23 10:41	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2108356	1	08/05/23 22:27	08/05/23 22:27	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2114275	1	08/15/23 14:15	08/15/23 14:15	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2108162	1	08/08/23 10:45	08/08/23 10:45	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	1	08/04/23 23:23	08/04/23 23:23	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	10	08/05/23 00:03	08/05/23 00:03	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2109751	1	08/09/23 10:35	08/10/23 19:08	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2110281	1	08/10/23 12:23	08/18/23 01:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2110286	1	08/09/23 15:46	08/15/23 10:22	SJM	Mt. Juliet, TN

MW-65_08022023 L1642533-04 GW

Collected by: M. Germansen | Collected date/time: 08/02/23 12:56 | Received date/time: 08/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2109032	1	08/07/23 10:13	08/07/23 18:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2115447	1	08/17/23 10:45	08/17/23 10:45	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2108356	1	08/05/23 22:29	08/05/23 22:29	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2114275	1	08/15/23 14:15	08/15/23 14:15	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2108162	1	08/08/23 10:45	08/08/23 10:45	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	1	08/05/23 00:17	08/05/23 00:17	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2109751	1	08/09/23 10:35	08/10/23 19:10	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2110281	1	08/10/23 12:23	08/18/23 01:30	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2110286	1	08/09/23 15:46	08/15/23 10:25	SJM	Mt. Juliet, TN

SAMPLE SUMMARY

RW-01_08022023 L1642533-05 GW

			Collected by	Collected date/time	Received date/time
			M. Germansen	08/02/23 12:56	08/04/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2109032	1	08/07/23 10:13	08/07/23 18:18	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2115447	1	08/17/23 10:51	08/17/23 10:51	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2107779	1	08/05/23 23:29	08/05/23 23:29	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2114275	1	08/15/23 14:15	08/15/23 14:15	MCC	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2108162	1	08/08/23 10:45	08/08/23 10:45	JAS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2108209	1	08/05/23 01:11	08/05/23 01:11	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2109751	1	08/09/23 10:35	08/10/23 19:13	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2110281	1	08/10/23 12:23	08/18/23 01:11	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2110286	1	08/09/23 15:46	08/15/23 10:28	SJM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	238		10.0	1	08/07/2023 18:18	WG2109032

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Carbonate	U		8.45	20.0	1	08/17/2023 10:51	WG2115447

Sample Narrative:
L1642533-05 WG2115447: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.125		0.0500	0.100	1	08/05/2023 23:29	WG2107779

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.12	T8	1	08/15/2023 14:15	WG2114275

Sample Narrative:
L1642533-05 WG2114275: 8.12 at 21.4C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	458		10.0	1	08/08/2023 10:45	WG2108162

Sample Narrative:
L1642533-05 WG2108162: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.272		0.0640	0.150	1	08/05/2023 01:11	WG2108209
Sulfate	18.3		0.594	5.00	1	08/05/2023 01:11	WG2108209

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury,Dissolved	U		0.000100	0.000200	1	08/10/2023 19:13	WG2109751

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic,Dissolved	0.00465	J	0.00440	0.0100	1	08/18/2023 01:11	WG2110281
Barium,Dissolved	0.0785	O1	0.000736	0.00500	1	08/18/2023 01:11	WG2110281
Beryllium,Dissolved	U		0.000330	0.00200	1	08/18/2023 01:11	WG2110281
Cadmium,Dissolved	U		0.000479	0.00200	1	08/18/2023 01:11	WG2110281
Calcium,Dissolved	40.3	O1	0.0793	1.00	1	08/18/2023 01:11	WG2110281
Chromium,Dissolved	U		0.00140	0.0100	1	08/18/2023 01:11	WG2110281
Lead,Dissolved	U		0.00299	0.00600	1	08/18/2023 01:11	WG2110281

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Magnesium,Dissolved	28.2	O1	0.0853	1.00	1	08/18/2023 01:11	WG2110281
Nickel,Dissolved	0.0212		0.00161	0.0100	1	08/18/2023 01:11	WG2110281
Potassium,Dissolved	2.87		0.261	2.00	1	08/18/2023 01:11	WG2110281
Selenium,Dissolved	U		0.00735	0.0100	1	08/18/2023 01:11	WG2110281
Sodium,Dissolved	9.65		0.504	3.00	1	08/18/2023 01:11	WG2110281

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.00103	0.00400	1	08/15/2023 10:28	WG2110286
Thallium,Dissolved	U		0.000121	0.00200	1	08/15/2023 10:28	WG2110286
Uranium,Dissolved	0.0133		0.0000789	0.00100	1	08/15/2023 10:28	WG2110286

Method Blank (MB)

(MB) R3958707-1 08/07/23 18:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1642533-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-04 08/07/23 18:18 • (DUP) R3958707-3 08/07/23 18:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Dissolved Solids	249	246	1	1.21		5

L1642533-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-05 08/07/23 18:18 • (DUP) R3958707-4 08/07/23 18:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Dissolved Solids	238	240	1	0.837		5

Laboratory Control Sample (LCS)

(LCS) R3958707-2 08/07/23 18:18

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Dissolved Solids	8800	8700	98.9	77.3-123	

Method Blank (MB)

(MB) R3959914-1 08/10/23 16:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1642350-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1642350-07 08/10/23 16:15 • (DUP) R3959914-3 08/10/23 16:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2110	2540	1	18.5	J3	5

L1642533-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-02 08/10/23 16:15 • (DUP) R3959914-4 08/10/23 16:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	413	456	1	9.90	J3	5

Laboratory Control Sample (LCS)

(LCS) R3959914-2 08/10/23 16:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8680	98.6	77.3-123	

Method Blank (MB)

(MB) R3962119-2 08/17/23 10:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1642533-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-02 08/17/23 10:31 • (DUP) R3962119-3 08/17/23 10:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R3957337-1 08/05/23 23:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1642533-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-05 08/05/23 23:29 • (DUP) R3957337-3 08/05/23 23:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.125	0.124	1	0.803		20

Laboratory Control Sample (LCS)

(LCS) R3957337-2 08/05/23 23:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.48	99.2	90.0-110	

L1642533-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-05 08/05/23 23:29 • (MS) R3957337-4 08/05/23 23:36 • (MSD) R3957337-5 08/05/23 23:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.125	2.71	2.71	103	103	1	90.0-110			0.000	20

Method Blank (MB)

(MB) R3957334-1 08/05/23 22:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1642533-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-04 08/05/23 22:29 • (DUP) R3957334-3 08/05/23 22:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.130	0.129	1	0.772		20

L1642746-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1642746-01 08/05/23 22:49 • (DUP) R3957334-6 08/05/23 22:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1.58	1.58	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3957334-2 08/05/23 22:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1642533-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-04 08/05/23 22:29 • (MS) R3957334-4 08/05/23 22:31 • (MSD) R3957334-5 08/05/23 22:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.130	2.71	2.70	103	103	1	90.0-110			0.370	20

L1642746-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1642746-01 08/05/23 22:49 • (MS) R3957334-7 08/05/23 22:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	1.58	4.05	98.8	1	90.0-110	

L1642533-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-01 08/15/23 14:15 • (DUP) R3960931-2 08/15/23 14:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.95	7.98	1	0.377		1

Sample Narrative:
OS: 7.95 at 21.5C
DUP: 7.98 at 21.4C

L1644928-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1644928-04 08/15/23 14:15 • (DUP) R3960931-3 08/15/23 14:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	1.33	1.33	1	0.000		1

Sample Narrative:
OS: 1.33 at 22.7C
DUP: 1.33 at 22.7C

Laboratory Control Sample (LCS)

(LCS) R3960931-1 08/15/23 14:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10 at 23.3C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3957995-1 08/08/23 10:45

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1642343-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1642343-01 08/08/23 10:45 • (DUP) R3957995-3 08/08/23 10:45

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1643231-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1643231-01 08/08/23 10:45 • (DUP) R3957995-4 08/08/23 10:45

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	ND	ND	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3957995-2 08/08/23 10:45

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	732	737	101	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3959712-1 08/04/23 19:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1642533-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1642533-04 08/05/23 00:17 • (DUP) R3959712-3 08/05/23 00:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.271	0.281	1	3.66		15
Sulfate	17.4	17.4	1	0.0996		15

L1642640-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1642640-02 08/05/23 02:20 • (DUP) R3959712-6 08/05/23 02:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.214	0.240	1	11.5		15
Sulfate	13.8	13.7	1	0.314		15

Laboratory Control Sample (LCS)

(LCS) R3959712-2 08/04/23 19:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	7.99	99.9	80.0-120	
Sulfate	40.0	40.3	101	80.0-120	

L1642533-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-04 08/05/23 00:17 • (MS) R3959712-4 08/05/23 00:44 • (MSD) R3959712-5 08/05/23 00:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	0.271	5.35	5.35	102	102	1	80.0-120			0.120	15
Sulfate	50.0	17.4	69.3	69.0	104	103	1	80.0-120			0.405	15

L1642640-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1642640-02 08/05/23 02:20 • (MS) R3959712-7 08/05/23 02:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	5.00	0.214	5.21	99.8	1	80.0-120	
Sulfate	50.0	13.8	63.8	100	1	80.0-120	

QUALITY CONTROL SUMMARY

L1642533-01,02,03,04,05

Method Blank (MB)

(MB) R3959251-1 08/10/23 18:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3959251-2 08/10/23 18:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00349	116	80.0-120	

L1643222-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1643222-04 08/10/23 18:53 • (MS) R3959251-3 08/10/23 18:55 • (MSD) R3959251-4 08/10/23 18:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00376	0.00377	125	126	1	75.0-125		J5	0.0702	20

Method Blank (MB)

(MB) R3962482-1 08/18/23 01:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.00440	0.0100
Barium,Dissolved	U		0.000736	0.00500
Beryllium,Dissolved	U		0.000330	0.00200
Cadmium,Dissolved	U		0.000479	0.00200
Calcium,Dissolved	U		0.0793	1.00
Chromium,Dissolved	U		0.00140	0.0100
Lead,Dissolved	0.00387	J	0.00299	0.00600
Magnesium,Dissolved	U		0.0853	1.00
Nickel,Dissolved	U		0.00161	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3962482-2 08/18/23 01:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	1.00	0.987	98.7	80.0-120	
Barium,Dissolved	1.00	0.996	99.6	80.0-120	
Beryllium,Dissolved	1.00	0.959	95.9	80.0-120	
Cadmium,Dissolved	1.00	1.00	100	80.0-120	
Calcium,Dissolved	10.0	9.47	94.7	80.0-120	
Chromium,Dissolved	1.00	1.01	101	80.0-120	
Lead,Dissolved	1.00	0.953	95.3	80.0-120	
Magnesium,Dissolved	10.0	9.56	95.6	80.0-120	
Nickel,Dissolved	1.00	0.955	95.5	80.0-120	
Potassium,Dissolved	10.0	9.43	94.3	80.0-120	
Selenium,Dissolved	1.00	0.967	96.7	80.0-120	
Sodium,Dissolved	10.0	9.73	97.3	80.0-120	

L1642533-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-05 08/18/23 01:11 • (MS) R3962482-4 08/18/23 01:16 • (MSD) R3962482-5 08/18/23 01:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1.00	0.00465	1.00	1.02	99.9	101	1	75.0-125			1.48	20
Barium,Dissolved	1.00	0.0785	1.07	1.08	99.0	99.9	1	75.0-125			0.858	20
Beryllium,Dissolved	1.00	U	0.964	0.974	96.4	97.4	1	75.0-125			1.09	20

L1642533-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-05 08/18/23 01:11 • (MS) R3962482-4 08/18/23 01:16 • (MSD) R3962482-5 08/18/23 01:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium,Dissolved	1.00	U	1.01	1.02	101	102	1	75.0-125			1.09	20
Calcium,Dissolved	10.0	40.3	48.6	49.0	82.8	86.4	1	75.0-125			0.743	20
Chromium,Dissolved	1.00	U	1.01	1.02	101	102	1	75.0-125			1.23	20
Lead,Dissolved	1.00	U	0.956	0.968	95.6	96.8	1	75.0-125			1.30	20
Magnesium,Dissolved	10.0	28.2	37.1	37.1	89.1	89.5	1	75.0-125			0.108	20
Nickel,Dissolved	1.00	0.0212	0.974	0.985	95.3	96.4	1	75.0-125			1.12	20
Potassium,Dissolved	10.0	2.87	12.3	12.4	94.1	95.0	1	75.0-125			0.765	20
Selenium,Dissolved	1.00	U	0.986	1.01	98.6	101	1	75.0-125			1.98	20
Sodium,Dissolved	10.0	9.65	19.3	19.5	96.7	98.5	1	75.0-125			0.934	20

Method Blank (MB)

(MB) R3960743-1 08/15/23 09:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony,Dissolved	U		0.00103	0.00400
Thallium,Dissolved	0.000627	J	0.000121	0.00200
Uranium,Dissolved	U		0.0000789	0.00100

Laboratory Control Sample (LCS)

(LCS) R3960743-2 08/15/23 10:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony,Dissolved	0.0500	0.0475	95.1	80.0-120	
Thallium,Dissolved	0.0500	0.0428	85.7	80.0-120	
Uranium,Dissolved	0.0500	0.0434	86.7	80.0-120	

L1642533-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1642533-01 08/15/23 10:05 • (MS) R3960743-4 08/15/23 10:12 • (MSD) R3960743-5 08/15/23 10:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	0.0500	0.00388	0.0516	0.0525	95.4	97.2	1	75.0-125			1.76	20
Thallium,Dissolved	0.0500	0.00102	0.0444	0.0452	86.8	88.3	1	75.0-125			1.66	20
Uranium,Dissolved	0.0500	0.00712	0.0509	0.0529	87.6	91.6	1	75.0-125			3.83	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Energy Fuels Resources

225 Union Blvd
Suite 600
Lakewood, CO 80228

Billing Information:
Accounts Payable
225 Union Blvd
Suite 600
Lakewood, CO 80228

Report to:
Kathy Weinel

Email To: KWeinel@energyfuels.com

Project Description:
Pinyon Plain Mine Aquifer Protection Permit

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #
ENEFUELCO-PINYONMINE

Collected by (print):
M. Germaser

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	*Diss Metals (FF) 250mlHDPE HNO3	Alkalinity, PH 125mlHDPE-NoPres	Fluoride, Sulfate 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres					Remarks	Sample # (lab only)
MW-01_07312023	Grab	GW	—	7/31/23	1559	4	N	x	x	x	x	x						-01
MW-02_08032023	Grab	GW	~	8/3/23	1314	4	N	x	x	x	x	x						-02
MW-03_08022023	Grab	GW	~	8/2/23	1130	4	N											-03
MW-65_08022023	Grab	GW	~	8/2/23	1256	4	N											-04
RW-01_08022023	Grab	GW	~	8/2/23	1256	4	N											-05
MW-01_07312023	Grab	GW	~	7/31/23	1559	3	N						x	x	x	x		
MW-02_08032023	Grab	GW	~	8/3/23	1314	3	N						x	x	x	x		
MW-03_08022023	Grab	GW	~	8/2/23	1130	3	N											
MW-65_08022023	Grab	GW	~	8/2/23	1256	3	N											
RW-01_08022023	Grab	GW	~	8/2/23	1256	3	N											

Rads

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1542533
T A049
Acctnum: ENEFUELCO
Template: T217177
Prelogin: P999073
PM: 732 - Donna Eidson
PB: CR 5/17/23
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Field Filtered Diss Metals

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	8/3/23	1430	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: °C Bottles Received: 35

Date: 8/9/23 Time: 1045

If preservation r PH-10BDH4321 TRC-2144141 CR6-20221V

Hold:

Condition: NCF / OK

Tracking Numbers	GB A8 Temperature
UPS	5.0±0=5.0
I	2.3±0=2.3

8/4-NCF-L1642533/L1642538 ENEFUELCO

R5

Time estimate: oh **Time spent:** oh

Members

Hailey Melson (responsible) Donna Eidson

Due on *8 August 2023 8:00 AM* for target *Done*

- [ ] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [x] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Melson *4 August 2023 3:03 PM*

1) Client did not mark analysis for IDs: MW-03_08022023, MW-65_08022023, RW-01_08022023
2) Client did not list RAD analysis. Currently logged per P999074 taken from the ID labels.

Donna Eidson *4 August 2023 4:33 PM*

MW-03_08022023, MW-65_08022023, RW-01_08022023 - same as -01, -02
RAD is correct as logged.

Hailey Melson *4 August 2023 5:17 PM*

Done

ANALYTICAL REPORT

January 15, 2024

Revised Report

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Energy Fuels Resources

Sample Delivery Group:	L1676565
Samples Received:	11/10/2023
Project Number:	
Description:	Sump Discharge

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP-1470_11022023 L1676565-01 GW

Collected by	Collected date/time	Received date/time
	11/02/23 14:55	11/10/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2169665	1	11/12/23 18:18	11/12/23 22:33	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2172434	1	11/16/23 14:31	11/16/23 14:31	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2176338	1	11/25/23 21:46	11/25/23 21:46	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2175119	1	11/22/23 09:00	11/22/23 09:00	JGM	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2176797	1	11/24/23 16:27	11/24/23 16:27	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2177346	1	11/27/23 14:36	11/27/23 14:36	KMC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2177346	10	11/27/23 14:50	11/27/23 14:50	KMC	Mt. Juliet, TN
Mercury by Method 7470A	WG2205495	1	01/11/24 14:17	01/11/24 19:34	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2183471	1	12/06/23 11:01	12/08/23 09:32	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	2.25	12/07/23 08:55	12/09/23 09:20	JPD	Mt. Juliet, TN

PREWTP-10142023 L1676565-02 GW

Collected by	Collected date/time	Received date/time
	10/14/23 16:30	11/10/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2169665	1	11/12/23 18:18	11/12/23 22:33	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2175621	1	11/22/23 13:46	11/22/23 13:46	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2176338	1	11/25/23 21:48	11/25/23 21:48	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2175119	1	11/22/23 09:00	11/22/23 09:00	JGM	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2176797	1	11/24/23 16:27	11/24/23 16:27	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2168929	1	11/11/23 00:35	11/11/23 00:35	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2205495	1	01/11/24 14:17	01/11/24 19:36	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2183471	1	12/06/23 11:01	12/08/23 09:35	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:23	JPD	Mt. Juliet, TN

PEST WTP TANK_10142023 L1676565-03 GW

Collected by	Collected date/time	Received date/time
	10/14/23 16:35	11/10/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2169665	1	11/12/23 18:18	11/12/23 22:33	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2173263	1	11/17/23 14:49	11/17/23 14:49	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2176338	1	11/25/23 21:59	11/25/23 21:59	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2175119	1	11/22/23 09:00	11/22/23 09:00	JGM	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2176797	1	11/24/23 16:27	11/24/23 16:27	NTG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2168929	1	11/11/23 00:48	11/11/23 00:48	GEB	Mt. Juliet, TN
Mercury by Method 7470A	WG2205495	1	01/11/24 14:17	01/11/24 19:26	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2183471	1	12/06/23 11:01	12/08/23 09:38	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2183585	1	12/07/23 08:55	12/09/23 09:26	JPD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Report Revision History

Level II Report - Version 1: 11/29/23 10:12

Project Narrative

Added missing metals.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	876	T8	13.3	1	11/12/2023 22:33	WG2169665

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Carbonate	U		8.45	20.0	1	11/16/2023 14:31	WG2172434

Sample Narrative:
L1676565-01 WG2172434: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	2.01		0.0500	0.100	1	11/25/2023 21:46	WG2176338

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.31	T8	1	11/22/2023 09:00	WG2175119

Sample Narrative:
L1676565-01 WG2175119: 7.31 at 20.1C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1390		10.0	1	11/24/2023 16:27	WG2176797

Sample Narrative:
L1676565-01 WG2176797: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.105	J	0.0640	0.150	1	11/27/2023 14:36	WG2177346
Sulfate	359		5.94	50.0	10	11/27/2023 14:50	WG2177346

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000361		0.000100	0.000200	1	01/11/2024 19:34	WG2205495

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	8.12		0.00440	0.0100	1	12/08/2023 09:32	WG2183471
Barium	16.8		0.000736	0.00500	1	12/08/2023 09:32	WG2183471
Beryllium	0.000465	J	0.000330	0.00200	1	12/08/2023 09:32	WG2183471
Cadmium	0.0176		0.000479	0.00200	1	12/08/2023 09:32	WG2183471
Calcium	131		0.0793	1.00	1	12/08/2023 09:32	WG2183471
Chromium	0.0228		0.00140	0.0100	1	12/08/2023 09:32	WG2183471
Copper	0.620		0.00368	0.0100	1	12/08/2023 09:32	WG2183471

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	32.5		0.0180	0.100	1	12/08/2023 09:32	WG2183471
Lead	3.65		0.00299	0.00600	1	12/08/2023 09:32	WG2183471
Magnesium	68.2		0.0853	1.00	1	12/08/2023 09:32	WG2183471
Manganese	0.0708		0.000934	0.0100	1	12/08/2023 09:32	WG2183471
Nickel	6.78		0.00161	0.0100	1	12/08/2023 09:32	WG2183471
Potassium	9.51	B	0.261	2.00	1	12/08/2023 09:32	WG2183471
Selenium	0.0121		0.00735	0.0100	1	12/08/2023 09:32	WG2183471
Sodium	33.8		0.504	3.00	1	12/08/2023 09:32	WG2183471

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Antimony	0.0680		0.00232	0.00900	2.25	12/09/2023 09:20	WG2183585
Thallium	0.0256		0.000272	0.00450	2.25	12/09/2023 09:20	WG2183585
Uranium	0.169		0.000178	0.00225	2.25	12/09/2023 09:20	WG2183585
Vanadium	0.00440	J	0.00149	0.0113	2.25	12/09/2023 09:20	WG2183585
Zinc	9.13		0.00680	0.0563	2.25	12/09/2023 09:20	WG2183585

Method Blank (MB)

(MB) R3999795-1 11/12/23 22:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1675612-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1675612-02 11/12/23 22:33 • (DUP) R3999795-3 11/12/23 22:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	241	252	1	4.46		5

L1675947-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1675947-04 11/12/23 22:33 • (DUP) R3999795-4 11/12/23 22:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	373	380	1	1.86		5

Laboratory Control Sample (LCS)

(LCS) R3999795-2 11/12/23 22:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8610	97.8	85.0-115	

Method Blank (MB)

(MB) R4001316-3 11/16/23 11:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1676892-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676892-01 11/16/23 12:18 • (DUP) R4001316-4 11/16/23 12:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1676304-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1676304-07 11/16/23 14:01 • (DUP) R4001316-5 11/16/23 14:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4002185-2 11/17/23 14:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1677972-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1677972-01 11/17/23 14:52 • (DUP) R4002185-3 11/17/23 14:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1678105-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1678105-07 11/17/23 16:21 • (DUP) R4002185-4 11/17/23 16:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	339	355	1	4.78		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4003717-2 11/22/23 13:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1678538-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678538-01 11/22/23 13:37 • (DUP) R4003717-4 11/22/23 13:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1678538-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1678538-03 11/22/23 15:59 • (DUP) R4003717-6 11/22/23 16:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4004192-1 11/25/23 21:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1676565-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1676565-02 11/25/23 21:48 • (DUP) R4004192-3 11/25/23 21:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.131	0.121	1	7.94		20

L1676565-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1676565-03 11/25/23 21:59 • (DUP) R4004192-6 11/25/23 22:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.149	0.143	1	4.11		20

Laboratory Control Sample (LCS)

(LCS) R4004192-2 11/25/23 21:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.59	104	90.0-110	

L1676565-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676565-02 11/25/23 21:48 • (MS) R4004192-4 11/25/23 21:53 • (MSD) R4004192-5 11/25/23 21:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.131	2.51	2.61	95.0	99.0	1	90.0-110			3.99	20

L1676565-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1676565-03 11/25/23 21:59 • (MS) R4004192-7 11/25/23 22:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.149	2.61	98.2	1	90.0-110	

L1676565-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676565-01 11/22/23 09:00 • (DUP) R4003301-2 11/22/23 09:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.31	7.30	1	0.137		1

Sample Narrative:
OS: 7.31 at 20.1C
DUP: 7.3 at 20.2C

L1680173-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1680173-02 11/22/23 09:00 • (DUP) R4003301-3 11/22/23 09:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.67	7.66	1	0.130		1

Sample Narrative:
OS: 7.67 at 20.3C
DUP: 7.66 at 20.2C

Laboratory Control Sample (LCS)

(LCS) R4003301-1 11/22/23 09:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10.02 at 20.3C

Method Blank (MB)

(MB) R4004004-1 11/24/23 16:27

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1679039-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679039-02 11/24/23 16:27 • (DUP) R4004004-3 11/24/23 16:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2340	2360	1	0.638		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1679385-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1679385-02 11/24/23 16:27 • (DUP) R4004004-4 11/24/23 16:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	2890	2860	1	0.975		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4004004-2 11/24/23 16:27

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	344	105	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R3998949-1 11/10/23 18:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1676355-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1676355-03 11/10/23 23:19 • (DUP) R3998949-5 11/10/23 23:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1675656-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1675656-01 11/11/23 05:33 • (DUP) R3998949-8 11/11/23 05:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.517	0.520	1	0.521		15
Sulfate	24.7	24.8	1	0.338		15

Laboratory Control Sample (LCS)

(LCS) R3998949-2 11/10/23 18:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.43	105	80.0-120	
Sulfate	40.0	40.3	101	80.0-120	

L1676355-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676355-02 11/10/23 22:29 • (MS) R3998949-3 11/10/23 22:42 • (MSD) R3998949-4 11/10/23 22:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	40.0	641	544	547	0.000	0.000	10	80.0-120	V	V	0.565	15

L1676355-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676355-02 11/11/23 01:59 • (MS) R3998949-6 11/11/23 02:12 • (MSD) R3998949-7 11/11/23 02:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8.00	0.337	8.23	7.95	98.6	95.1	1	80.0-120			3.46	15
Sulfate	40.0	620	547	549	0.000	0.000	1	80.0-120	E V	E V	0.348	15

L1675656-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1675656-01 11/11/23 05:33 • (MS) R3998949-9 11/11/23 05:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	8.00	0.517	8.40	98.5	1	80.0-120	
Sulfate	40.0	24.7	59.2	86.2	1	80.0-120	

Method Blank (MB)

(MB) R4005070-1 11/27/23 12:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1679259-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1679259-04 11/27/23 17:49 • (DUP) R4005070-3 11/27/23 18:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.402	0.351	1	13.5		15
Sulfate	98.9	99.8	1	0.872		15

L1679259-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1679259-08 11/27/23 19:53 • (DUP) R4005070-6 11/27/23 20:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.227	0.203	1	11.2		15
Sulfate	72.4	72.5	1	0.0664		15

Laboratory Control Sample (LCS)

(LCS) R4005070-2 11/27/23 12:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	8.01	100	80.0-120	
Sulfate	40.0	40.0	100	80.0-120	

L1679259-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679259-04 11/27/23 17:49 • (MS) R4005070-4 11/27/23 18:16 • (MSD) R4005070-5 11/27/23 18:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8.00	0.402	9.59	9.00	115	108	1	80.0-120			6.34	15
Sulfate	40.0	98.9	119	119	50.3	51.0	1	80.0-120	J6	J6	0.216	15

Sample Narrative:

MS: Spike failure due to matrix interference

L1679259-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1679259-04 11/27/23 17:49 • (MS) R4005070-4 11/27/23 18:16 • (MSD) R4005070-5 11/27/23 18:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %

MSD: Spike failure due to matrix interference

L1679259-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1679259-08 11/27/23 19:53 • (MS) R4005070-7 11/27/23 20:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	8.00	0.227	9.63	118	1	80.0-120	
Sulfate	40.0	72.4	98.7	65.7	1	80.0-120	J6

Sample Narrative:

MS: Spike failure due to matrix interference

Method Blank (MB)

(MB) R4022261-1 01/11/24 19:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R4022261-2 01/11/24 19:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00309	103	80.0-120	

L1676565-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676565-03 01/11/24 19:26 • (MS) R4022261-3 01/11/24 19:29 • (MSD) R4022261-4 01/11/24 19:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.000107	0.00315	0.00314	101	101	1	75.0-125			0.322	20

Method Blank (MB)

(MB) R4010043-1 12/08/23 09:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00440	0.0100
Barium	U		0.000736	0.00500
Beryllium	U		0.000330	0.00200
Cadmium	U		0.000479	0.00200
Calcium	0.0820	J	0.0793	1.00
Chromium	U		0.00140	0.0100
Copper	U		0.00368	0.0100
Iron	U		0.0180	0.100
Lead	U		0.00299	0.00600
Magnesium	U		0.0853	1.00
Manganese	0.00439	J	0.000934	0.0100
Nickel	U		0.00161	0.0100
Potassium	1.07	J	0.261	2.00
Selenium	U		0.00735	0.0100
Sodium	0.690	J	0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R4010043-2 12/08/23 09:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	1.02	102	80.0-120	
Barium	1.00	1.04	104	80.0-120	
Beryllium	1.00	1.03	103	80.0-120	
Cadmium	1.00	1.01	101	80.0-120	
Calcium	10.0	10.0	100	80.0-120	
Chromium	1.00	1.03	103	80.0-120	
Copper	1.00	1.02	102	80.0-120	
Iron	10.0	10.0	100	80.0-120	
Lead	1.00	0.975	97.5	80.0-120	
Magnesium	10.0	9.87	98.7	80.0-120	
Manganese	1.00	0.998	99.8	80.0-120	
Nickel	1.00	1.03	103	80.0-120	
Potassium	10.0	11.5	115	80.0-120	
Selenium	1.00	1.02	102	80.0-120	
Sodium	10.0	10.7	107	80.0-120	

L1683704-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-03 12/08/23 09:19 • (MS) R4010043-4 12/08/23 09:24 • (MSD) R4010043-5 12/08/23 09:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	0.0108	1.02	1.03	101	102	1	75.0-125			0.857	20
Barium	1.00	0.125	1.11	1.12	98.6	99.3	1	75.0-125			0.606	20
Beryllium	1.00	0.000693	0.993	0.999	99.3	99.8	1	75.0-125			0.541	20
Cadmium	1.00	0.000910	0.984	0.997	98.3	99.6	1	75.0-125			1.34	20
Calcium	10.0	95.1	103	103	75.6	79.3	1	75.0-125			0.358	20
Chromium	1.00	0.00243	0.964	0.965	96.2	96.2	1	75.0-125			0.0444	20
Copper	1.00	U	1.00	1.00	100	100	1	75.0-125			0.0906	20
Iron	10.0	3.30	12.8	12.8	94.6	95.3	1	75.0-125			0.614	20
Lead	1.00	0.00327	0.948	0.951	94.5	94.8	1	75.0-125			0.324	20
Magnesium	10.0	42.1	50.6	50.4	84.4	83.0	1	75.0-125			0.267	20
Manganese	1.00	1.14	2.08	2.08	94.9	94.5	1	75.0-125			0.149	20
Nickel	1.00	0.00164	0.976	0.998	97.4	99.6	1	75.0-125			2.20	20
Potassium	10.0	7.20	17.1	16.8	99.4	95.9	1	75.0-125			2.06	20
Selenium	1.00	U	1.00	1.02	100	102	1	75.0-125			1.75	20
Sodium	10.0	26.4	34.7	35.2	83.1	88.2	1	75.0-125			1.45	20

QUALITY CONTROL SUMMARY

L1676565-01,02,03

Method Blank (MB)

(MB) R4010176-1 12/09/23 08:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.00103	0.00400
Thallium	U		0.000121	0.00200
Uranium	U		0.0000789	0.00100
Vanadium	U		0.000664	0.00500
Zinc	U		0.00302	0.0250

Laboratory Control Sample (LCS)

(LCS) R4010176-2 12/09/23 09:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0512	102	80.0-120	
Thallium	0.0500	0.0481	96.3	80.0-120	
Uranium	0.0500	0.0487	97.5	80.0-120	
Vanadium	0.0500	0.0493	98.7	80.0-120	
Zinc	0.0500	0.0490	98.0	80.0-120	

L1682607-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682607-01 12/09/23 09:04 • (MS) R4010176-4 12/09/23 09:10 • (MSD) R4010176-5 12/09/23 09:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	U	0.0523	0.0524	105	105	1	75.0-125			0.0535	20
Thallium	0.0500	U	0.0490	0.0493	98.0	98.6	1	75.0-125			0.580	20
Uranium	0.0500	0.000184	0.0512	0.0510	102	102	1	75.0-125			0.359	20
Vanadium	0.0500	0.00291	0.0534	0.0535	101	101	1	75.0-125			0.287	20
Zinc	0.0500	U	0.0519	0.0535	104	107	1	75.0-125			3.02	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Energy Fuels Resources

3549 South Cheryl Dr
Flagstaff, AZ 86005

Billing Information:
225 Union Blvd.
Suite 600
Lakewood, CO 80228

Pres Chk

Report to: **Kathy Weinel**

Email To: **kweinel@energyfuels.com**

Project Description:

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature)

Immediately Packed on ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
00122017

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	ALKCA 125mlHDPE-NoPres	FLUORIDE,SULFATE 125mlHDPE-NoPres	GROSS ALPHA 500mlHDPE-add HNO3	NO2NO3 250mlHDPE-H2SO4	PH 125mlHDPE-NoPres	RA-226 1L-HDPE-add HNO3	RA-228 1L-HDPE-add HNO3	TDS 1L-HDPE- add-HNO3	Total Metals 250mlHDPE-HNO3	Remarks	Sample # (lab only)
Sump-1470_11022023				11/2/23	1455	4	X	X		X	X			X	X		-01
~~PREWTP_10142023~~					1		X	X		X	X			X	X		
PRE WTP=10142023				10/14/23	1630	4	X	X		X	X			X	X		-02
Post WTP Tank_10142023				10/14/23	1635	4	X	X		X	X			X	X		-03
							X	X		X	X			X	X		
Sump-1470_11022023				11/2/23	1455	3			X			X	X				
PRE WTP_10142023				10/14/23	1630	3			X			X	X				
POST WTP Tank_10142023				10/14/23	1635	3			X			X	X				
									X			X	X				
									X			X	X				

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1676565
A057

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: **Sump Discharge**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by: (Signature)	11-2-2023	1530	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.9+0=5.9°C Bottles Received: 21
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Carol Kemp	Date: 11/9/23 Time: 10:15

If: PH-10BDH4321 TPC: 21621C CR6-2022'V /Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

December 15, 2023

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Energy Fuels Resources

Sample Delivery Group:	L1676570
Samples Received:	11/09/2023
Project Number:	
Description:	Pinyon Plain Mine GW Sampling

Report To: Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

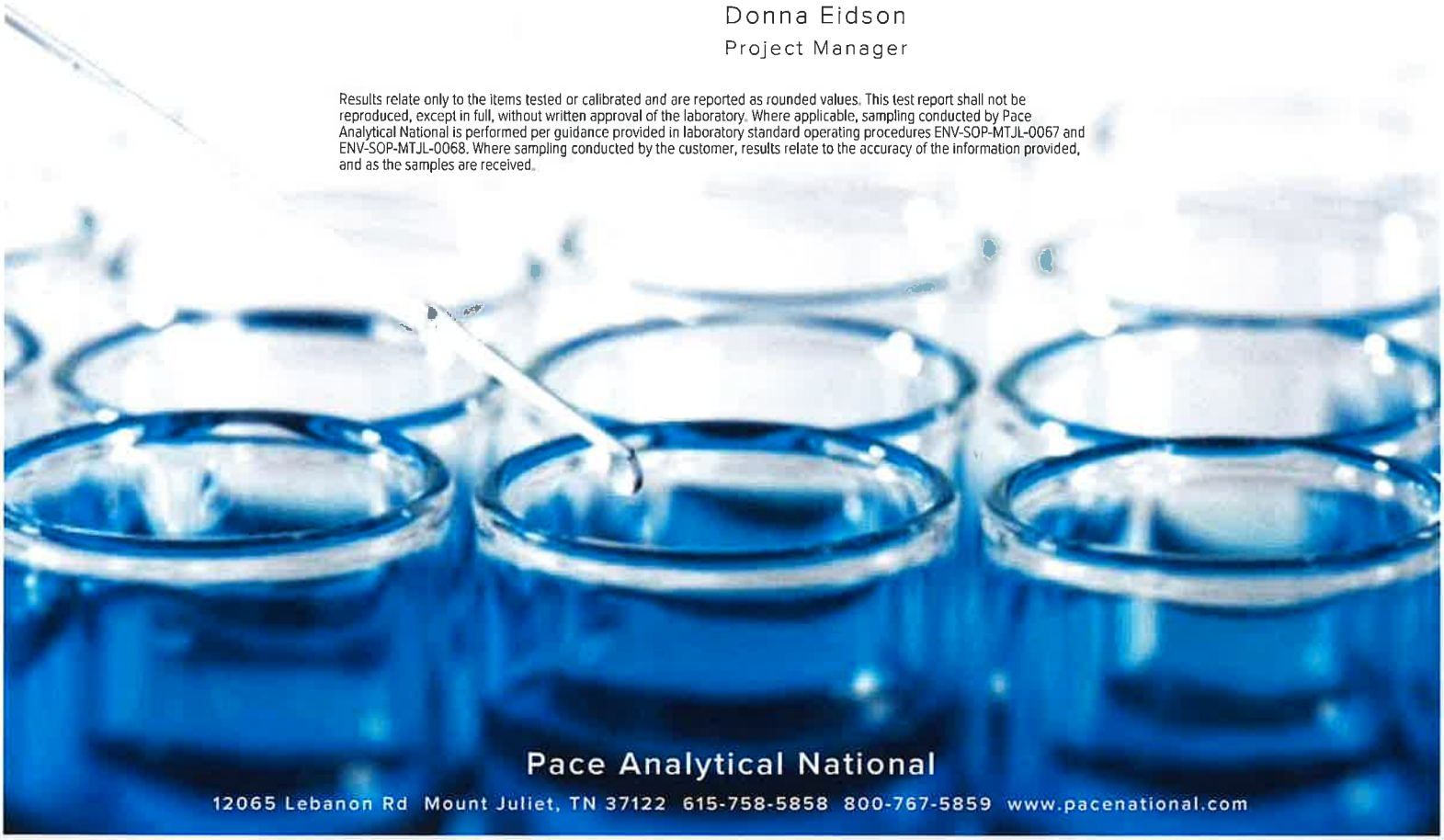

TABLE OF CONTENTS

SAMPLE SUMMARY

SUMP-1470_11022023 L1676570-01 Non-Potable Water

Collected by | Collected date/time 11/02/23 14:55 | Received date/time 11/09/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2175243	1	11/21/23 09:47	11/26/23 12:46	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2182577	1	12/04/23 17:41	12/07/23 18:34	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2175243	1	11/21/23 09:47	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2181251	1	12/01/23 21:26	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2179469	1	11/30/23 09:26	12/06/23 10:42	RGT	Mt. Juliet, TN

PREWTP_10142023 L1676570-02 Non-Potable Water

Collected by | Collected date/time 10/14/23 16:30 | Received date/time 11/09/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2175243	1	11/21/23 09:47	11/26/23 12:46	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2182577	1	12/04/23 17:41	12/07/23 18:34	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2175243	1	11/21/23 09:47	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2181251	1	12/01/23 21:26	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2179469	1	11/30/23 09:26	12/06/23 10:42	RGT	Mt. Juliet, TN

POST WTP TANK_10142023 L1676570-03 Non-Potable Water

Collected by | Collected date/time 10/14/23 16:35 | Received date/time 11/09/23 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 900	WG2175243	1	11/21/23 09:47	11/26/23 12:47	SNR	Mt. Juliet, TN
Radiochemistry by Method 904/9320	WG2182577	1	12/04/23 17:41	12/07/23 18:34	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2175243	1	11/21/23 09:47	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method D3972 U-02	WG2181251	1	12/01/23 21:26	12/05/23 19:42	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2179469	1	11/30/23 09:26	12/06/23 10:42	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Radiochemistry by Method 900

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
GROSS ALPHA	443		20.5	45.5	3.47	2.11	11/26/2023 12:46	WG2175243

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	2.63		0.335		0.531		12/07/2023 18:34	WG2182577
(T) Barium	*116*					*30.0-143*	*12/07/2023 18:34*	WG2182577
(T) Yttrium	*110*					*30.0-136*	*12/07/2023 18:34*	WG2182577

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Adjusted Gross Alpha	281				12/05/2023 19:42	WG2175243

Radiochemistry by Method D3972 U-02

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
URANIUM-234	106		5.31		0.400	0.304	12/05/2023 19:42	WG2181251
URANIUM-235	4.60		1.11		0.318	0.263	12/05/2023 19:42	WG2181251
URANIUM-238	56.2		3.86		0.318	0.263	12/05/2023 19:42	WG2181251
(T) URANIUM-232	*54.5*					*30.0-110*	*12/05/2023 19:42*	WG2181251

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	26.6		2.00	1.49	0.349	0.233	12/06/2023 10:42	WG2179469
(T) Barium-133	*116*					*30.0-143*	*12/06/2023 10:42*	WG2179469

Method Blank (MB)

(MB) R4005310-1 11/26/23 12:46

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
GROSS ALPHA	0.115	U	0.391	0.601	0.364

L1678446-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1678446-02 11/26/23 12:47 • (DUP) R4005310-5 11/26/23 12:46

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
GROSS ALPHA	1.36	0.920	1.13	0.654	2.21	0.887	0.879	0.528	47.4	0.661		20	3

Laboratory Control Sample (LCS)

(LCS) R4005310-2 11/26/23 12:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
GROSS ALPHA	15.0	13.9	92.5	80.0-120	

L1678734-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1678734-01 11/28/23 15:03 • (MS) R4005310-3 11/26/23 12:46 • (MSD) R4005310-4 11/26/23 12:46

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
GROSS ALPHA	23.1	4.12	28.2	30.9	104	116	1	70.0-130			9.01		20

Method Blank (MB)

(MB) R4010985-1 12/07/23 18:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.284		0.154	0.276	
(T) Barium	*120*		*120*		
(T) Yttrium	*118*		*118*		

L1676570-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1676570-02 12/07/23 18:34 • (DUP) R4010985-5 12/07/23 18:34

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.954	0.274	0.478		1.38	0.379	0.661		36.4	0.909		20	3
(T) Barium	*110*				*110*	*110*							
(T) Yttrium	*97.2*				*125*	*125*							

Laboratory Control Sample (LCS)

(LCS) R4010985-2 12/07/23 18:34

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.94	119	80.0-120	
(T) Barium			*110*		
(T) Yttrium			*107*		

L1676560-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676560-01 12/07/23 18:34 • (MS) R4010985-3 12/07/23 18:34 • (MSD) R4010985-4 12/07/23 18:34

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	2.84	13.7	12.3	109	94.7	1	70.0-130			10.9		20
(T) Barium		*114*			*119*	*113*							
(T) Yttrium		*106*			*127*	*105*							

Method Blank (MB)

(MB) R4009341-1 12/05/23 19:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
URANIUM-234	0.376	J	0.398	0.457	0.377
URANIUM-235	0.168	U	0.288	0.457	0.377
URANIUM-238	0.772		0.556	0.457	0.377
(T) URANIUM-232	*39.3*		*39.3*		

L1677689-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1677689-04 12/05/23 19:42 • (DUP) R4009341-5 12/05/23 19:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
URANIUM-234	0.725	0.440	0.310	0.256	0.820	0.456	0.295	0.244	12.3	0.150		20	3
URANIUM-235	0.313	0.300	0.310	0.256	0.554	0.381	0.295	0.244	55.7	0.498		20	3
URANIUM-238	0.712	0.444	0.354	0.278	1.14	0.536	0.295	0.244	46.3	0.616		20	3
(T) URANIUM-232	*49.5*				*58.4*	*58.4*							

Laboratory Control Sample (LCS)

(LCS) R4009341-2 12/05/23 19:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
URANIUM-234	20.1	18.5	91.9	80.0-120	
URANIUM-238	19.6	21.6	110	80.0-120	
(T) URANIUM-232			*56.7*		

L1677689-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677689-03 12/05/23 19:42 • (MS) R4009341-3 12/05/23 19:42 • (MSD) R4009341-4 12/05/23 19:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
URANIUM-234	20.1	0.673	19.1	16.7	91.7	79.9	1	75.0-125			13.3		20
URANIUM-238	19.6	1.16	21.4	17.2	103	81.9	1	75.0-125		J3	21.5		20
(T) URANIUM-232		*67.7*			*72.3*	*76.4*							

Method Blank (MB)

(MB) R4012157-1 12/06/23 10:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0554	J	0.0642	0.0875	0.0619
(T) Barium-133	*72.5*		*72.5*		

L1676570-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1676570-03 12/06/23 10:42 • (DUP) R4012157-5 12/06/23 10:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	2.65	0.652	0.253	0.188	2.38	0.581	0.302	0.203	10.8	0.313		20	3
(T) Barium-133	*87.9*				*87.7*	*87.7*							

Laboratory Control Sample (LCS)

(LCS) R4012157-2 12/06/23 10:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.08	102	80.0-120	
(T) Barium-133			*74.8*		

L1672751-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1672751-01 12/06/23 10:42 • (MS) R4012157-3 12/06/23 10:42 • (MSD) R4012157-4 12/06/23 10:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.745	20.6	24.8	99.1	120	1	75.0-125			18.5		20
(T) Barium-133		*83.6*			*76.4*	*83.0*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615 758-5858 Alt: 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1676570
A057

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Company Name/Address:
Energy Fuels Resources
3549 South Cheryl Dr
Flagstaff, AZ 86005

Billing Information:
225 Union Blvd.
Suite 600
Lakewood, CO 80228

Pres Chk

Report to: **Kathy Weinel**

Email To: **kweinel@energyfuels.com**

Project Description:

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # **00122017**

Date Results Needed

Immediately Packed on Ice N ___ Y ___

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs (CK 11/9)	ALKCA 125mlHDPE-NoPres	FLUORIDE,SULFATE 125mlHDPE-NoPres	GROSS ALPHA 500mlHDPE-add HNO3 (U)	NO2NO3 250mlHDPE-H2SO4 (U)	PH 125mlHDPE-NoPres	RA-226 1L-HDPE-add HNO3 (U)	RA-228 1L-HDPE-add HNO3 (UU)	TDS 1L-HDPE- add-HNO3 (UU)	Total Metals 250mlHDPE-HNO3 (U)		Remarks	Sample # (lab only)
Sump-1470_11022023				11/2/23	1455	4	X	X		X	X			X	X			
~~PREWTP_1014~~							X	X		X	X			X	X			
PRE WTP_10142023				10/14/23	1630	4	X	X		X	X			X	X			
Post WTP Tank_10142023				10/14/23	1635	4	X	X		X	X			X	X			
							X	X		X	X			X	X			
Sump-1470_11022023				11/2/23	1455	3			X			X	X					-01
PRE WTP_10142023				10/14/23	1630	3			X			X	X					-02
POST WTP Tank_10142023				10/14/23	1635	3			X			X	X					-03
									X			X	X					
									X			X	X					

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ______

Remarks: **Sump Discharge**

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by: (Signature) [signature]	Date: 11-2-2023	Time: 1530	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Temp: 5.9±0=5.9 °C Bottles Received: 21
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11/9/23 Time: 10:15

If ... PH-10BDH4321 TRC-236236 CR6-20221V

Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

January 09, 2024

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Energy Fuels Resources

Sample Delivery Group:	L1689041
Samples Received:	12/15/2023
Project Number:	
Description:	Pinyon Plain Mine GW Sampling

Report To:

Kathy Weinel
225 Union Blvd
Suite 600
Lakewood, CO 80228

Entire Report Reviewed By:

Donna Eidson
Project Manager

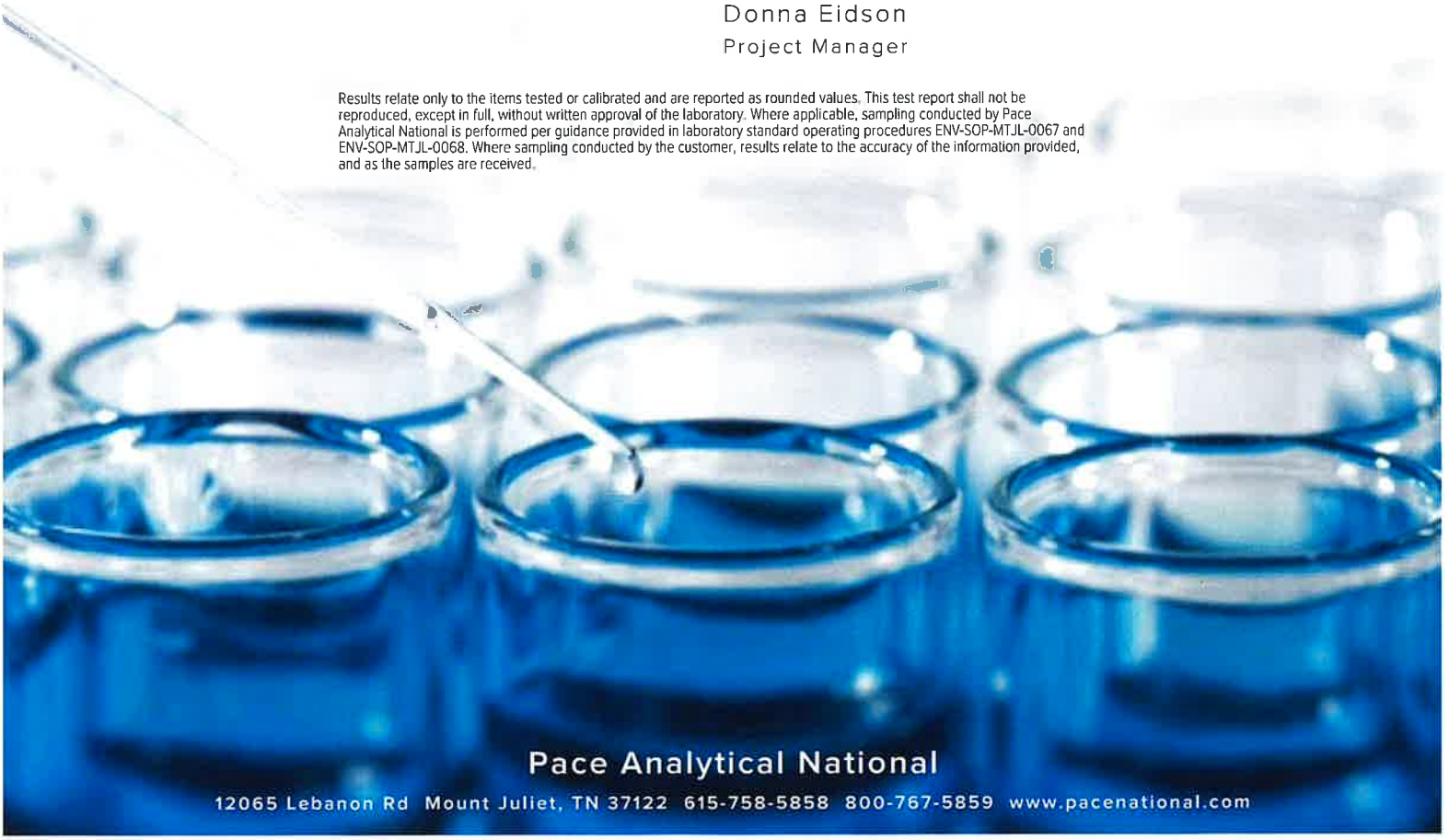

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-01_12112023 L1689041-01 GW

Collected by: Travis B | Collected date/time: 12/11/23 11:55 | Received date/time: 12/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2192080	1	12/19/23 12:48	12/19/23 17:55	DLS	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2192952	1	12/20/23 16:44	12/20/23 16:44	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2196890	1	12/28/23 18:00	12/28/23 18:00	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2196405	1	12/29/23 15:00	12/29/23 15:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2192049	1	12/19/23 11:00	12/19/23 11:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	1	12/29/23 14:02	12/29/23 14:02	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2199084	5	01/01/24 16:59	01/01/24 16:59	ASM	Mt. Juliet, TN
Mercury by Method 7470A	WG2194370	1	12/28/23 08:54	12/28/23 23:13	SDG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2196013	1	12/31/23 09:48	12/31/23 12:26	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2196027	1	12/29/23 11:43	12/31/23 17:07	LD	Mt. Juliet, TN

MW-02_12102023 L1689041-02 GW

Collected by: Travis B | Collected date/time: 12/10/23 15:17 | Received date/time: 12/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2191014	1	12/17/23 12:36	12/17/23 17:23	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2192952	1	12/20/23 16:51	12/20/23 16:51	ARD	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2196890	1	12/28/23 18:02	12/28/23 18:02	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2196405	1	12/29/23 15:00	12/29/23 15:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2192049	1	12/19/23 11:00	12/19/23 11:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	1	12/29/23 14:16	12/29/23 14:16	ASM	Mt. Juliet, TN
Mercury by Method 7470A	WG2194370	1	12/28/23 08:54	12/28/23 23:24	SDG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2196013	1	12/31/23 09:48	12/31/23 12:29	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2196027	1	12/29/23 11:43	12/31/23 17:10	LD	Mt. Juliet, TN

MW-03_12122023 L1689041-03 GW

Collected by: Travis B | Collected date/time: 12/12/23 11:07 | Received date/time: 12/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2191016	1	12/17/23 14:28	12/17/23 18:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2195506	1	12/25/23 09:00	12/25/23 09:00	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2196890	1	12/28/23 18:05	12/28/23 18:05	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2196405	1	12/29/23 15:00	12/29/23 15:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2192049	1	12/19/23 11:00	12/19/23 11:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	1	12/29/23 14:29	12/29/23 14:29	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	10	12/29/23 14:43	12/29/23 14:43	ASM	Mt. Juliet, TN
Mercury by Method 7470A	WG2194370	1	12/28/23 08:54	12/28/23 23:27	SDG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2196013	1	12/31/23 09:48	12/31/23 12:32	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2196027	1	12/29/23 11:43	12/31/23 17:14	LD	Mt. Juliet, TN

MW-65_12122023 L1689041-04 GW

Collected by: Travis B | Collected date/time: 12/12/23 15:44 | Received date/time: 12/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2191016	1	12/17/23 14:28	12/17/23 18:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2195504	1	12/27/23 09:27	12/27/23 09:27	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2196890	1	12/28/23 18:07	12/28/23 18:07	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2196405	1	12/29/23 15:00	12/29/23 15:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2192049	1	12/19/23 11:00	12/19/23 11:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	1	12/29/23 14:57	12/29/23 14:57	ASM	Mt. Juliet, TN
Mercury by Method 7470A	WG2194370	1	12/28/23 08:54	12/28/23 23:29	SDG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2196013	1	12/31/23 09:48	12/31/23 12:35	JTM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2196027	1	12/29/23 11:43	12/31/23 17:17	LD	Mt. Juliet, TN

SAMPLE SUMMARY

RW-01_12122023 L1689041-05 GW

Collected by: Travis B
Collected date/time: 12/12/23 15:44
Received date/time: 12/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2191016	1	12/17/23 14:28	12/17/23 18:13	JAC	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2195504	1	12/27/23 09:33	12/27/23 09:33	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2196890	1	12/28/23 18:09	12/28/23 18:09	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2196405	1	12/29/23 15:00	12/29/23 15:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2192049	1	12/19/23 11:00	12/19/23 11:00	EPW	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2198013	1	12/29/23 15:11	12/29/23 15:11	ASM	Mt. Juliet, TN
Mercury by Method 7470A	WG2194370	1	12/28/23 08:54	12/28/23 23:31	SDG	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2196013	1	12/31/23 09:48	12/31/23 12:43	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2196027	1	12/29/23 11:43	12/31/23 17:41	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	221		10.0	1	12/17/2023 18:13	WG2191016

Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Alkalinity,Carbonate	U	T8	8.45	20.0	1	12/27/2023 09:33	WG2195504

Sample Narrative:
L1689041-05 WG2195504: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.0990	J	0.0500	0.100	1	12/28/2023 18:09	WG2196890

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	7.81	T8	1	12/29/2023 15:00	WG2196405

Sample Narrative:
L1689041-05 WG2196405: 7.81 at 19.2C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	483		10.0	1	12/19/2023 11:00	WG2192049

Sample Narrative:
L1689041-05 WG2192049: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Fluoride	0.171		0.0640	0.150	1	12/29/2023 15:11	WG2198013
Sulfate	18.1		0.594	5.00	1	12/29/2023 15:11	WG2198013

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury,Dissolved	U		0.000100	0.000200	1	12/28/2023 23:31	WG2194370

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic,Dissolved	U		0.00440	0.0100	1	12/31/2023 12:43	WG2196013
Barium,Dissolved	0.0820		0.000736	0.00500	1	12/31/2023 12:43	WG2196013
Beryllium,Dissolved	U		0.000330	0.00200	1	12/31/2023 12:43	WG2196013
Cadmium,Dissolved	U		0.000479	0.00200	1	12/31/2023 12:43	WG2196013
Calcium,Dissolved	42.8		0.0793	1.00	1	12/31/2023 12:43	WG2196013
Chromium,Dissolved	U		0.00140	0.0100	1	12/31/2023 12:43	WG2196013
Lead,Dissolved	U		0.00299	0.00600	1	12/31/2023 12:43	WG2196013

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium,Dissolved	27.8		0.0853	1.00	1	12/31/2023 12:43	WG2196013
Nickel,Dissolved	0.0130		0.00161	0.0100	1	12/31/2023 12:43	WG2196013
Potassium,Dissolved	2.46		0.261	2.00	1	12/31/2023 12:43	WG2196013
Selenium,Dissolved	U		0.00735	0.0100	1	12/31/2023 12:43	WG2196013
Sodium,Dissolved	8.27		0.504	3.00	1	12/31/2023 12:43	WG2196013

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Antimony,Dissolved	U		0.00103	0.00400	1	12/31/2023 17:41	WG2196027
Thallium,Dissolved	U		0.000121	0.00200	1	12/31/2023 17:41	WG2196027
Uranium,Dissolved	0.0129		0.0000789	0.00100	1	12/31/2023 17:41	WG2196027

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Method Blank (MB)

(MB) R4014033-1 12/17/23 17:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1687743-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1687743-01 12/17/23 17:23 • (DUP) R4014033-3 12/17/23 17:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	441	451	1	2.24		5

L1687743-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1687743-04 12/17/23 17:23 • (DUP) R4014033-4 12/17/23 17:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	376	381	1	1.32		5

Laboratory Control Sample (LCS)

(LCS) R4014033-2 12/17/23 17:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	9160	104	85.0-115	

Method Blank (MB)

(MB) R4014490-1 12/17/23 18:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1687920-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1687920-03 12/17/23 18:13 • (DUP) R4014490-3 12/17/23 18:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	418	427	1	2.13		5

L1687975-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1687975-01 12/17/23 18:13 • (DUP) R4014490-4 12/17/23 18:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	836	866	1	3.53		5

Laboratory Control Sample (LCS)

(LCS) R4014490-2 12/17/23 18:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	9210	105	85.0-115	

Method Blank (MB)

(MB) R4015485-1 12/19/23 17:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1687511-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1687511-01 12/19/23 17:55 • (DUP) R4015485-3 12/19/23 17:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	144	147	1	2.06		5

Laboratory Control Sample (LCS)

(LCS) R4015485-2 12/19/23 17:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	9320	106	85.0-115	

Method Blank (MB)

(MB) R4015129-2 12/20/23 14:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1688916-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1688916-13 12/20/23 15:06 • (DUP) R4015129-3 12/20/23 15:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1688916-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1688916-16 12/20/23 16:36 • (DUP) R4015129-4 12/20/23 16:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4017211-2 12/27/23 08:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1689467-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1689467-01 12/27/23 09:17 • (DUP) R4017211-3 12/27/23 09:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1689796-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1689796-02 12/27/23 11:19 • (DUP) R4017211-4 12/27/23 11:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4016465-2 12/25/23 08:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1690683-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1690683-01 12/25/23 08:52 • (DUP) R4016465-3 12/25/23 08:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

L1690683-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1690683-02 12/25/23 11:57 • (DUP) R4016465-4 12/25/23 12:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity,Carbonate	U	U	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

Method Blank (MB)

(MB) R4017851-1 12/28/23 17:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1684690-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1684690-01 12/28/23 19:01 • (DUP) R4017851-8 12/28/23 19:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1.26	1.27	1	0.553		20

L1684690-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1684690-02 12/28/23 19:09 • (DUP) R4017851-11 12/28/23 19:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.528	0.532	1	0.755		20

Laboratory Control Sample (LCS)

(LCS) R4017851-2 12/28/23 17:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.55	102	90.0-110	

L1684690-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1684690-01 12/28/23 19:01 • (MS) R4017851-9 12/28/23 19:05 • (MSD) R4017851-10 12/28/23 19:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.26	3.56	3.59	92.0	93.1	1	90.0-110			0.755	20

L1684690-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1684690-02 12/28/23 19:09 • (MS) R4017851-12 12/28/23 19:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.528	2.78	90.0	1	90.0-110	

L1689041-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1689041-01 12/29/23 15:00 • (DUP) R4018280-2 12/29/23 15:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.76	7.74	1	0.258		1

Sample Narrative:
OS: 7.76 at 19.5C
DUP: 7.74 at 19.4C

L1691156-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1691156-01 12/29/23 15:00 • (DUP) R4018280-3 12/29/23 15:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.07	8.07	1	0.000		1

Sample Narrative:
OS: 8.07 at 18.7C
DUP: 8.07 at 19.1C

Laboratory Control Sample (LCS)

(LCS) R4018280-1 12/29/23 15:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10 at 20C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4014198-1 12/19/23 11:00

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1689041-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1689041-01 12/19/23 11:00 • (DUP) R4014198-3 12/19/23 11:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	937	919	1	1.94		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1689306-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1689306-02 12/19/23 11:00 • (DUP) R4014198-4 12/19/23 11:00

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1420	1400	1	1.06		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4014198-2 12/19/23 11:00

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	339	104	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4018564-1 12/29/23 09:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1690253-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1690253-01 12/29/23 15:24 • (DUP) R4018564-3 12/29/23 16:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1690721-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1690721-03 12/29/23 19:04 • (DUP) R4018564-6 12/29/23 19:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.159	0.121	1	26.8	J P1	15
Sulfate	61.9	62.2	1	0.338		15

Laboratory Control Sample (LCS)

(LCS) R4018564-2 12/29/23 09:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	8.00	7.70	96.2	80.0-120	
Sulfate	40.0	39.1	97.8	80.0-120	

L1690253-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690253-01 12/29/23 15:24 • (MS) R4018564-4 12/29/23 16:19 • (MSD) R4018564-5 12/29/23 16:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8.00	U	8.27	7.78	103	97.3	1	80.0-120			6.07	15
Sulfate	40.0	U	39.6	39.0	98.9	97.4	1	80.0-120			1.51	15

L1690721-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1690721-03 12/29/23 19:04 • (MS) R4018564-7 12/29/23 19:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Fluoride	8.00	0.159	8.21	101	1	80.0-120	
Sulfate	40.0	61.9	92.1	75.4	1	80.0-120	J6

Method Blank (MB)

(MB) R4018723-1 01/01/24 14:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1690532-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1690532-04 01/01/24 18:28 • (DUP) R4018723-3 01/01/24 18:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	111	111	1	0.312		15

Laboratory Control Sample (LCS)

(LCS) R4018723-2 01/01/24 14:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	37.9	94.7	80.0-120	

L1690532-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690532-04 01/01/24 18:28 • (MS) R4018723-4 01/01/24 18:54 • (MSD) R4018723-5 01/01/24 19:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	40.0	111	125	124	35.2	32.9	1	80.0-120	J6	J6	0.725	15

Sample Narrative:

MS: SO4 spike failed due to sample matrix

MSD: SO4 spike failed due to sample matrix

Method Blank (MB)

(MB) R4017891-1 12/28/23 23:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R4017891-2 12/28/23 23:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00332	111	80.0-120	

L1689041-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1689041-01 12/28/23 23:13 • (MS) R4017891-3 12/28/23 23:15 • (MSD) R4017891-4 12/28/23 23:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00339	0.00343	113	114	1	75.0-125			1.26	20

Method Blank (MB)

(MB) R4018547-1 12/31/23 12:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.00440	0.0100
Barium,Dissolved	U		0.000736	0.00500
Beryllium,Dissolved	U		0.000330	0.00200
Cadmium,Dissolved	U		0.000479	0.00200
Calcium,Dissolved	U		0.0793	1.00
Chromium,Dissolved	U		0.00140	0.0100
Lead,Dissolved	U		0.00299	0.00600
Magnesium,Dissolved	U		0.0853	1.00
Nickel,Dissolved	U		0.00161	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R4018547-2 12/31/23 12:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	1.00	0.973	97.3	80.0-120	
Barium,Dissolved	1.00	0.997	99.7	80.0-120	
Beryllium,Dissolved	1.00	1.02	102	80.0-120	
Cadmium,Dissolved	1.00	0.962	96.2	80.0-120	
Calcium,Dissolved	10.0	9.53	95.3	80.0-120	
Chromium,Dissolved	1.00	1.01	101	80.0-120	
Lead,Dissolved	1.00	0.979	97.9	80.0-120	
Magnesium,Dissolved	10.0	9.56	95.6	80.0-120	
Nickel,Dissolved	1.00	0.987	98.7	80.0-120	
Potassium,Dissolved	10.0	9.18	91.8	80.0-120	
Selenium,Dissolved	1.00	0.915	91.5	80.0-120	
Sodium,Dissolved	10.0	9.98	99.8	80.0-120	

L1690753-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690753-05 12/31/23 12:15 • (MS) R4018547-4 12/31/23 12:21 • (MSD) R4018547-5 12/31/23 12:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1.00	U	1.01	1.03	101	103	1	75.0-125			1.84	20
Barium,Dissolved	1.00	0.0464	1.06	1.08	101	104	1	75.0-125			2.37	20
Beryllium,Dissolved	1.00	U	1.04	1.07	104	107	1	75.0-125			2.98	20

L1690753-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1690753-05 12/31/23 12:15 • (MS) R4018547-4 12/31/23 12:21 • (MSD) R4018547-5 12/31/23 12:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cadmium,Dissolved	1.00	U	0.989	1.01	98.9	101	1	75.0-125			2.42	20
Calcium,Dissolved	10.0	90.5	104	105	133	144	1	75.0-125	V	V	1.05	20
Chromium,Dissolved	1.00	U	1.03	1.06	103	106	1	75.0-125			2.70	20
Lead,Dissolved	1.00	U	0.984	1.01	98.4	101	1	75.0-125			2.63	20
Magnesium,Dissolved	10.0	13.3	23.3	23.5	100	102	1	75.0-125			0.779	20
Nickel,Dissolved	1.00	U	0.994	1.02	99.4	102	1	75.0-125			2.20	20
Potassium,Dissolved	10.0	3.91	13.4	13.7	94.8	97.9	1	75.0-125			2.28	20
Selenium,Dissolved	1.00	0.0208	0.949	0.977	92.8	95.6	1	75.0-125			2.90	20
Sodium,Dissolved	10.0	2.66	12.7	13.1	101	104	1	75.0-125			2.66	20

Method Blank (MB)

(MB) R4018566-1 12/31/23 16:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony,Dissolved	U		0.00103	0.00400
Thallium,Dissolved	U		0.000121	0.00200
Uranium,Dissolved	U		0.0000789	0.00100

Laboratory Control Sample (LCS)

(LCS) R4018566-2 12/31/23 16:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony,Dissolved	0.0500	0.0500	100	80.0-120	
Thallium,Dissolved	0.0500	0.0480	96.0	80.0-120	
Uranium,Dissolved	0.0500	0.0479	95.7	80.0-120	

L1691085-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1691085-03 12/31/23 16:54 • (MS) R4018566-4 12/31/23 17:01 • (MSD) R4018566-5 12/31/23 17:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	0.0500	U	0.0524	0.0518	105	104	1	75.0-125			1.17	20
Thallium,Dissolved	0.0500	U	0.0483	0.0481	96.6	96.3	1	75.0-125			0.361	20
Uranium,Dissolved	0.0500	0.000365	0.0502	0.0503	99.7	99.8	1	75.0-125			0.159	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Groundwater

Company Name/Address:
Energy Fuels Resources
225 Union Blvd
Suite 600
Lakewood, CO 80228

Billing Information:
Accounts Payable
225 Union Blvd
Suite 600
Lakewood, CO 80228

Pres Chk

Email To: KWeinel@energyfuels.com

Report to: Kathy Weinel

Project Description: Pinyon Plain Mine GW Sampling

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project # ENEFUELCO-PINYONMINE

Collected by (print): Travis Boam

Site/Facility ID #

P.O. #

Collected by (signature): Travis Boam

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ___

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1689041
C018

Acctnum: ENEFUELCO
Template: T217177
Prelogin: P1042245
PM: 732 - Donna Eldson
PB:
Shipped Via: FedEX Ground

Analysis / Container / Preservative (TM 12-12-23)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Diss Metals (FF) 250mlHDPE HNO3	Alkalinity, PH 125mlHDPE-NoPres	Fluoride, Sulfate 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Gross Alpha 500mLHDPE-add HNO3	RA-226 1L-HDPE-add HNO3	RA-228 1L-HDPE - add HNO3			Remarks	Sample # (lab only)
MW-01_12112023	Grab	GW	-	12-11-23	1155	4	X	X	X	X	X							-01
MW-02_12102023	Grab	GW	-	12-10-23	1517	4	X	X	X	X	X							-02
MW-03_12122023	Grab	GW	-	12-12-23	1117	4	X	X	X	X	X							-03
MW-65_12122023	Grab	GW	-	12-12-23	1544	4	X	X	X	X	X							-04
		GW																
MW-01_12112023	Grab	GW	-	12-11-23	1155	3						X	X	X				
MW-02_12102023	Grab	GW	-	12-10-23	1517	3						X	X	X				
MW-03_12122023	Grab	GW	-	12-12-23	1117	3						X	X	X				
MW-65_12122023	Grab	GW	-	12-12-23	1544	3						X	X	X				
		GW										X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: X UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: _NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N
RAD Screen <0.5 mR/hr: _Y _N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Travis Boam	12-12-23	1730			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: MSA82.5 0=2.5 °C / Bottles Received: 34	If preservation required by Login: Date/Time PH-10BDH5021 TRC 2352157 CR6-20221V
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 12-16-23 / Time: 1000	Hold: / Condition: NCF / OK

12/15/23 HR 12/16

Groundwater

Company Name/Address: **Energy Fuels Resources** 225 Union Blvd Suite 600 Lakewood, CO 80228	Billing Information: **Accounts Payable** 225 Union Blvd Suite 600 Lakewood, CO 80228
Report to: **Kathy Weinel**	Email To: KWeinel@energyfuels.com
Project Description: **Pinyon Plain Mine GW Sampling**	City/State Collected:
Phone:	Client Project #
Collected by (print): Travis Boam	Site/Facility ID #
Collected by (signature): Travis Boam Immediately Packed on Ice N ___ Y ___	*Rush?* (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
	Lab Project # **ENEFUELCO-PINYONMINE**
	P.O. #
	Quote #
	Date Results Needed

Please Circle: PT MT CT ET

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*Diss Metals (FF) 250mlHDPE HNO3	Alkalinity, PH 125mlHDPE-NoPres	Fluoride, Sulfate 125mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Gross Alpha 500ml HDPE - add HNO3	RA-226 1L - HDPE - add HNO3	RA-228 1L - HDPE - add HNO3			Remarks	Sample # (lab only)
RW-01_12122023	Grab	GW	-	12-12-23	1544	4	X	X	X	X	X							-05
		GW																
		GW																
		GW																
		GW																
RW-01_12122023	Grab	GW	-	12-12-23	1544	3						X	X	X				
		GW																
		GW																
		GW																
		GW																

Chain of Custody Page ___ of ___

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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SDG # L1689041

Table #

Acctnum: ENEFUELCO

Template: T217177

Prelogin: P1042245

PM: 732 - Donna Elston

PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: UPS __FedEx __Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature) Travis Boam	Date: 12-12-23	Time: 1730	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 5.0 2.5 34
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) MSA82	Date: 12/16/23 Time: 1000

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

12/15/23 HR 12/16