SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51956
SDG: JNLE5
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: Q1131
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
Q1131-01	JNLA7	
Q1131-02	JNLE5	1.0

01 Water samples were delivered to the laboratory intact on 01/17/2025.
01 Soil samples were delivered to the laboratory intact on 01/17/2025.

Test requested on the Chain of Custody was Volatile Organic, Semivolatile Organic by Method SFAM01.1.

The temperature of the samples was measured using an I R Gun. The samples temperature was 3.1 degree Celsius for the samples received on 01/17/2025.

Low Volatiles:

The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI.
The analysis of VOC-SFAM was based on method SFAM01.1_Low.

Holding Times were met requirement.

The Surrogate recoveries met the acceptable criteria except for,
JNLE5 [2-Butanone-d5 - 145%, 2-Hexanone-d5 - 154%],
As per method, up to three surrogates are allowed to fail. No corrective action was taken.

The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Retention Times met requirements.
The Tuning criteria met requirements.

The Initial Calibration met the requirements.
The Continuing Calibration criteria met requirements.

The Blank analysis did not indicate the presence of lab contamination.
The Storage blank analysis did not indicate the presence of lab contamination.

See **Manual Integration report** for the manual integration information at the end of the case narrative.

Calculation:
Low/Med Water Level Calculation

$$\text{Concentration in ug/L} = \frac{(Ax)\,(Is)\,(DF)}{(Ais)\,(RRF)\,(Vo)}$$

Where,
Ax = Area of the characteristic ion (EICP) for the compound to be measured.
Ais = Area of the characteristic ion (EICP) for the internal standard.
Amount of internal standard added in ng.
RRF = Mean Relative Response Factor from the initial calibration standard.
Vo = Total volume of water purged, in mL.
DF = Dilution Factor

Example calculation of **JNLE5** for **Acetone:**

Ax= 2147
Is = 250
RRF=0.130
DF= 1
Ais= 197903
Vo. = 5

$$\text{Concentration in ug/L} = \frac{(2147)\,(250)\,(1)}{(197903)(0.130)(5)}$$

Reported Result = 4.17 ug/L

Final Reported Result = 4.2 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VX012125** for **5.0** ppb

$$RRF = \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}}$$

$$RRF = \frac{11305}{365750} \times \frac{50}{5.0}$$

RRF= 0.309

Semivolatiles:

The samples were analyzed on instrument BNA_M using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

The samples were analyzed on instrument BNA_P using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA

Semis volatile Organic sample for Soil sample was extracted by Method SFAM01.1 on 01/21/2025, The analysis of SVOC-PAH-SIM was based on method SFAM01.1_SVOC, and for water sample was extracted by Method SFAM01.1 on 01/20/2025, SVOC-SFAM was based on method SFAM01.1_SVOC.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {PB166157BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB166142BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met the requirements.
The Initial Calibration met the requirements.

The Continuous Calibration (SSTD020770) with File ID BP023651.D met the requirement except for 2-Nitrophenol-d4 (31.5%), As per method up to four target analytes and DMCs with maximum %D requirements of less than 40.0% may fail to meet the maximum %D criteria listed in Exhibit D – SVOA, Table 5, but these compounds must still meet the maximum %D requirement of 40.0%. No further corrective action was taken.

The Continuous Calibration (SSTD020771) with File ID BP023662.D met the requirement except for 2-Nitrophenol-d4 (33.3%), As per method up to four target analytes and DMCs with maximum %D requirements of less than 40.0% may fail to meet the maximum %D criteria listed in Exhibit D – SVOA, Table 5, but these compounds must still meet the maximum %D requirement of 40.0%. No further corrective action was taken.

The Continuous Calibration (SSTD020772) with File ID BP023675.D met the requirement except for 2-Nitrophenol-d4 (31.6%), As per method up to four target analytes and DMCs with

maximum %D requirements of less than 40.0% may fail to meet the maximum %D criteria listed in Exhibit D – SVOA, Table 5, but these compounds must still meet the maximum %D requirement of 40.0%. No further corrective action was taken.

Concentration of SOIL Sample:

Concentration ug/Kg,

$$\text{(dry weight basis)} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(RRF)\,(Vi)\,(Wt)\,(D)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vi = Volume of extract injected in microliters (uL)
Vt = Volume of concentrated extract in microliters (uL)
Wt = Weight of the original sample extracted in g
Df = Dilution factor
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

$$D = \frac{100 - \%\text{moisture}}{100}$$

No positive target compounds were detected in the soil samples.

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\frac{Vin}{}$ = GPC factor (If no GPC is performed, GPC=1)

Vout = Volume of extract collected after GPC cleanup

No positive target compounds were detected in the water samples.

RRF Calculation of standard 20 ppb for **Naphthalene** with M instrument for method 01/13/2025.

RRF= Area of compound / Area of Internal Standard X Conc. of Internal Standard / Conc. of Compound

= 1234861/1048568 X 20/20

= 1.178 (Reported RRF)

RRF Calculation of standard 20 ppb for **Naphthalene** with P instrument for method 01/14/2025.

RRF= Area of compound / Area of Internal Standard X Conc. of Internal Standard / Conc. of Compound

= 2687055/2194626X 20/20

= 1.224 (Reported RRF)

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Nimisha Pandya.

Date: _____ Title: Document Control Officer.