

Cursory Data Review of Analytical Results for Sample Sets

- L67895
- L67896
- L68186
- L68187
- L68302
- L79307

First it must be noted that all samples in these sets were solid material. They were either analyzed for total analysis, TCLP, or SPLP.

L67895

Date Collected: 9-21-2005
Date Received: 9-23-2005
Dates Analyzed: 9-26-2005 and 9-27-2005
Number of samples: 1

This set was analyzed for TCLP (method 1311) RCRA metals (8). The only hit above the PQL was barium at 0.47 mg/L. The remaining metals were not detected above the PQL. All PQLs meet RCRA limits that apply to the TCLP method. No results exceed RCRA limits for hazardous waste.

- All holding times were met.
- There were no analytical anomalies resulting in data qualification.
- All data is acceptable as presented.

L67896

Date Collected: 9-21-2005
Date Received: 9-23-2005
Date Extracted: 10-4-2005
Date Analyzed: 10-4-2005
Number of Samples: 1

This sample was analyzed for TPH-DRO (method 8015B) with a result of 19000 J mg/kg-dry.

- All holding times were met.
- The surrogate was understandably high due to the high analyte concentration. No data qualifier based on this issue.
- The sample was not shipped on ice and exceeded the recommended temperature of >0 to 6 degrees C. **The result should be qualified as estimated "J" based on this issue. The datum is still useable.**

L68186

Date Collected: 10-11-2005
Date Received: 10-12-2005
Number of Samples: 1

TPH-DRO Analysis:

Date Extracted: 10-12-2005
Date Analyzed: 10-13-2005

The TPH-DRO result was 2700 mg/kg-dry.

- All holding times were met.
- The surrogate was understandably high due to the high analyte concentration. No data qualifier based on this issue.
- All other quality control requirements were met.
- All data is acceptable as presented.

For the analysis of volatile organics (BTEX) by method 8260B, TCLP was requested.

Date Extracted: 10-12-2005
Date Analyzed: 10-13-2005

The BTEX (benzene, toluene, ethylbenzene, and xylene) were not detected (<0.042 mg/L). These were well below the associated RCRA criteria for TCLP.

- All holding times were met.
- The sample was received with headspace. However, since Utah continues to accept method 5030 for the collection of solid/soil samples it is impossible to collect samples without headspace. No data qualifier as a result of this issue.
- All other quality control requirements were met.
- All data is acceptable as presented.

L68187

Date Collected: 10-11-2005
Date Received: 10-12-2005
Dates Analyzed: 10-14-2005 and 10-18-2005
Number of Samples: 1

This set was analyzed for TCLP RCRA metals (8). The only hit above the PQL was barium at 1.6 mg/L. The remaining metals were not detected above the PQL. All PQLs meet RCRA limits that apply to the TCLP method. No results exceed RCRA limits for hazardous waste.

- All holding times were met.
- There were no analytical anomalies resulting in data qualification.
- All other quality control requirements were met.
- All data is acceptable as presented.

L68302

Date Collected: 9-21-2005
Date Received: 10-18-2005
Date Analyzed: 10-20-2005
Number of Samples: 2

This set was extracted by SPLP (Synthetic Precipitation Leaching Procedure) and the leachate was analyzed for total recoverable hydrocarbons (TRPH) by method 1664-SGT. Sample #1 result was <3.0 UJ mg/L and sample #2 was 3.3 J mg/L.

- Insufficient time was available to perform the SPLP and analysis before the 28 day hold time for TRPH analysis due to the delay in sample receipt. The holding time of 28 days was missed by one day. **According to guidelines the data is still useable but should be qualified "J" as estimated. The "U" flag indicates the sample is not detected at the reporting limit provided.**
- All other quality control requirements were met.
- All data is acceptable with appropriate qualifiers.

L79307

Date Collected: 7-31-2007
Date Received: 8-10-2007
Number of Samples: 3

For the RCRA TCLP (Method 1311) analysis the elements calcium, magnesium, potassium, and sodium were analyzed by method 6010B.

Date Analyzed: 8-20-2007

There were several low concentration hits of these elements. There are no RCRA limits for these elements as they are not considered toxic under this regulation.

- All holding times were met.
- There were no analytical anomalies resulting in data qualification.
- All other quality control requirements were met.
- All data is acceptable as presented.

Several classical chemistry methods were requested: Alkalinity, chloride, oil and grease, sulfate, total dissolved solids (TDS) and TRPH.

Dates Analyzed: 8-13-2007, 8-15-2007, and 8-17-2007

- All analytes were determined within the holding time with the exception of TDS. There are no guidelines for determining TDS in solid samples. EPA suggests using professional judgment in these cases. **It is our judgment that the data should be accepted but qualified as "J" as estimated. The result for oil and grease on sample #1 exceeded the limitations of the method. This result should be qualified "J" as estimated.**
- All other quality control requirements were met.
- All data is useable with appropriate qualifiers.

TPH-DRO by method 8015B

Three samples were analyzed with positive results (12000, 930, and 3400 mg/kg-dry respectively).

- All holding times were met.
- The surrogate on one sample was understandably high due to the high analyte concentration. No data qualifier based on this issue.
- All other quality control requirements were met.
- All data is acceptable as presented.

RCRA SPLP (method 1312) Semivolatile Analysis (SVOAs)

The three samples were analyzed for SVOA with no positive hits above the reporting limit of 0.025 mg/L. The reporting limit is below the RCRA regulatory limits.

- The holding time for the SPLP set up was exceeded by one day. The analysis after the SPLP preparation was analyzed within the holding time. **All data is qualified as "UJ" estimated as a result. The data are still useable.**
- All other quality control requirements were met.
- All data is useable with appropriate qualifiers.

RCRA SPLP (method 1312) Volatile Analysis (VOAs)

The three samples were analyzed for VOAs with no positive hits above the reporting limits. The reporting limit is below the RCRA regulatory limits.

- The holding time for the SPLP set up was exceeded by one day. The analysis after the SPLP preparation was analyzed within the holding time. **All data is qualified as "UJ" estimated as a result. The data are still useable.**
- All other quality control requirements were met.
- All data is useable with appropriate qualifiers.

Summary

It is our opinion that all of the data reviewed are useable. Most data are acceptable as presented. Some data are qualified as estimated based on minor issues.

The methods performed were based on meeting RCRA limits for hazardous waste. At no time was there information provided that the RCRA methods were to be used but alternative regulatory limits (Utah Groundwater Quality Standards) detection limits required. Unless specific information is provided, SPLP, TCLP and total analysis using RCRA methods are designed to meet RCRA limits not for Utah groundwater criteria. If lower reporting limits are required additional sampling and analysis may be required.