ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

US EPA RECORDS CENTER REGION 5
518524

CRL Receipt Date 1/16 FIT Receipt Date 3/12 Review Completed 3/12/90

TO: Wayne
FROM: Mary Gzyra
SUBJECT: Sparta Sign Asphalt
PAN: MI0 674SA (1 hour charged for review) Case # 13001

Sample Description

| Organics (VOA, ABN, Pest/PCB) | | Inorganics (Metals, Cyanide) | |
|---|---|---|---|
| # | Low Soil | # 6 | Low Soil |
| | Low Water | 3 | Low Water |
| | Drinking Water | | Drinking Water |
| | Other | | Other |

Project Data Status ✓ Completed!!

Incomplete, awaiting

FIT Data Review Findings:

***Check Data Sheets for Transcription Errors***

Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. Date Sampled 10/25

0759:2

recycled paper

1/3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 3-890

SUBJECT: Review of Region V CLP Data Received for Review on Jan 16, 1990

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory Jay Thakker

TO: Data User: Pit

3/12/90

We have reviewed the data for the following case(s).

SITE NAME: Spartan Sign Asphalt Co. SMO case No. 13001

EPA Data Set No. SF 6828 No. of Samples: 9 D.U./Activity Numbers TFA / TFA102

CRL No. 90FW02S66-72, D66, 90FW01R21

SMO Traffic No. Meyl 16-21, 23, 29, MeGF80

CLP Laboratory: Datachem Hrs. Required for Review: 8.5 +1/2 KDK 3/2/90

Following are our findings:

The laboratory's portion of case 13001 contains 6 low level soil samples and 3 low level water samples analyzed for total metals and cyanide.

(see next page)

Therese Lombard

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

3/12/90

Table 4- (Cont.)

| Physical State* | Waste Characteristics** | Category*** | SI Memo | Sample Collection Information and Parameters | Sample Number 1 MEGL 16 | 2 17 | 3 18 | 4 19 | 5 20 | 6 21 | 7 | 8 | 9 | 10 MEGL 23 | 11 MEGF 80 (Dup) | 12 MEGL 29 (Blk) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Analyte Detected (values in mg/kg or µg/L) | | | | | | | | | | | | |
| Solid | A,D | MES | csc/cwc | aluminum | 5200 | 18400 | 2460 | 3340 | 2790 | 8240 | | | | 38.7 JB | 56.3 JB | 78.2 JB |
| Solid | A,D | MES | HM | antimony | | | | | | | | | | | | |
| Solid | A,D | MES | HM | arsenic | 4.9 JNB | 15.5 JN | 1.8 JNB | 2.4 JN | 3.5 JN | 4.7 JN | | | | 13.5 | 11.9 | |
| Solid | A,D | MES | csc/cwc | barium | 68.9 B | 163 B | 18.4 B | 20.6 B | 23.2 B | 90.7 | | | | 184 B | 174 B | |
| Solid | A,D | MES | M | beryllium | | | | | | | | | | | | |
| Solid | A,D | MES | HM | cadmium | | | | | | | | | | | | |
| Solid | D | MES | csc/cwc | calcium | 63500 | 57500 | 26200 | 7220 | 61700 | 3640 | | | | 130000 | 133000 | |
| Solid | A,D | MES | HM | chromium | 17.2 | 40.8 | 7.9 | 6.9 | 11 | 12.5 | | | | | | |
| Solid | A,D | MES | HM | cobalt | | | | | | | | | | | | |
| Solid | A,D | MES | HM | copper | 11 B | 30.2 | 3.0 JB | 2.5 JB | 5.2 JB | 7.4 J | | | | | | 23 B |
| Solid | A,D | MES | HM,csc;cwc | iron | 13900 | 29600 | 6080 | 6860 | 6850 | 10500 | | | | 1320 | 1080 | 42 B |
| Solid | A,D | MES | HM | lead | 17.7 | 55.3 | 3.9 | 4.3 | 14.5 | 25 | | | | 1.3 JNWB | | |
| Solid | A,D | MES | csc/cwc | magnesium | 9010 | 12300 | 5860 | 3990 | 13300 | 1610 | | | | 33100 | 33800 | |
| Solid | A,D | MES | HM | manganese | 291 | 1130 | 130 | 51.9 | 166 | 1560 | | | | 221 | 226 | |
| Liquid | A,D | MES | HM | mercury | | | | | | | | | | | | |
| Solid | A,D | MES | HM | nickel | | | | | | | | | | | | |
| Solid | D | MES | csc,cwc | potassium | 1110 B | 3480 B | | | 431 B | 957 B | | | | 3380 B | 3710 B | |
| Solid | A,D | MES | M | selenium | 0.65 B | 2.0 B | | | | 0.60 B | | | | | | |
| Solid | A,D | MES | HM | silver | | | | | | | | | | | | |
| Solid | D | MES | csc,cwc | sodium | | | | | | | | | | 5620 | 5740 | |
| Solid | A,D | MES | HM | thallium | 1.1 B | | | | 0.27 B | | | | | | | |
| Solid | A,D | MES | HM | vanadium | 19.7 B | 51.4 | 9.4 B | 11.8 | 12.6 | 19.7 | | | | | | |
| Solid | A,D | MES | CWL,csc,HM | zinc | 63.9 | 171 | 19.4 | 11.6 | 28.7 | 48.7 | | | | 1090 J | 1570 J | |
| Solid | A | IOC | IOC | cyanide | | | | | | | | | | | | |

-- Not detected.

Table 4- (Cont.)

| COMPOUND QUALIFIERS | DEFINITION | INTERPRETATION |
|---|---|---|
| U | Indicates compound was analyzed for but not detected. | Compound was not detected at or above the CRDL. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a quality control (QC) protocol. | Compound was not detected if value is at CRQL, e.g., 10U UJ. If a value is reported with a UJ above CRQL and it is <5x blank concentration (10x for common laboratory artifacts), the compound is detected but may be a laboratory artifact and not attributable to the sample. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µL in the final extract shall be confirmed by GC/MS. | Compound was confirmed by GC/MS and is quantitative. Use pesticide/PCB listed value. |
| B | This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (<10x the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will <u>not</u> apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. There should be another analysis with a D qualifier, which is to be used. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. Data is quantitative. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a laboratory artifact in the TICs only. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

| ANALYTE QUALIFIERS | | DEFINITION | INTERPRETATION |
|---|---|---|---|
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Analyte or element was not detected, or value may be semiquantitative. |
| S | S | Analysis by Method of Standard Additions. | Value is quantitative. |
| R | N | Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semi-quantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be quantitative or semiquantitative. |
| + | + | Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| [ ] | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semi-quantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected at or above the CRDL. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |
| | R | Results are unusable due to a major violation of QC protocols. | Analyte value is not usable. |

Source: Ecology and Environment, Inc. 1989.

DATA QUALIFIERS



Contract Lab: Data Chem Case No.: 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

NOTE: A phone log was initiated by Region V to the laboratory on 2-8-90. The case was on hold pending resubmissions from the laboratory. Major discrepancies were found on Forms 2, 3 and 8. Also, the laboratory misnamed sample MEGF80 as MEGL80 throughout the data package (raw data and report forms). Due to total lack of response from the laboratory as of 3-2-90, the reviewer made all necessary corrections on Forms 2, 3 and 8, and correctly named sample MEGF80 on Forms 1, 5, 6, 8, 9, 13 and 14.

**SOIL SAMPLES (MEGL16-21)**

ICAP ANALYSIS:

CCB's were found to contain Cu (7.9, 9.3 ug/l). Therefore, Cu in samples MEGL18-21 are estimated (J) due to contamination.

Matrix spike analysis is out of control for Sb (52.0%), and the laboratory flagged Sb data for all soil samples with a N. Therefore, Sb data for all soil samples are estimated (UJ) due to possible elevation of the detection limits.

GFAA ANALYSIS:

Matrix spike analysis is out of control for As (71.8%), and the laboratory flagged As data for all soil samples with a N. Therefore, As data for all soil samples are estimated (J) due to a low bias.

Analytical spike analysis is out of control for Tl in sample MEGL21, and the laboratory flagged this result with a W. Therefore, Tl in MEGL21 is estimated (UJ) due to interferences.

OTHER QUALIFIERS:

The holding time for Hg is out of control for all soil samples (29 days). However, since no technical criteria has been established for soil samples, the Hg data are not qualified on this basis.

Hg and CN data for all soil samples are acceptable.

**WATER SAMPLES (MEGL23, 29, MEGF80)**

ICAP ANALYSIS:

The preparation blank was found to contain Al (62.9 ug/l). Therefore, Al in all 3 water samples are estimated (J) due to contamination.

GFAA ANALYSIS:

Matrix spike analysis is out of control for Pb (54.8%), and the laboratory flagged Pb data for all water samples with a N. Therefore, Pb in MEGL23 is estimated (J) due to a low bias, and Pb in MEGL29 and MEGF80 are estimated (UJ) due to possible elevation of the detection limits.

The laboratory incorrectly flagged the Pb result for MEGL29 with a W. This was removed by the reviewer.

Analytical spike analysis is out of control for Pb and Se in samples MEGL23 and MEGF80, and the laboratory flagged these results with a W. Therefore, Se in samples MEGL23 and MEGF80 are estimated (UJ) due to interferences. Pb in the mentioned samples are affected by interferences, but remain qualified as stated above.

OTHER QUALIFIERS:

The holding time for Hg was slightly exceeded for all water samples (28 days). Therefore, Hg data for all water samples are estimated (UJ) due to possible elevation of the detection limits.

Matrix spike analysis for CN (0%) is out of control, and the laboratory flagged CN data for all water samples with a N. CN data for all water samples are unusable (R).

Sample MEGL29 was a field blank which was found to contain Al (78.2 ug/l). Al in samples MEGL23 and MEGF80 are therefore affected by field blank contamination, but remain qualified as stated above.

Samples MEGL23 and MEGF80 are field duplicates which show good correlation except for Zn (36.1%). Therefore, Zn data for all water samples are estimated (J) due to poor field precision.

Reviewed by: Therese Lombard
3-2-90

DPO: [ ] ACTION [X] FYI

Region V

## INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 13001 LABORATORY DATA CHEM

SDG NO. MEGL16 DATA USER FIT

SOW 7/88 REVIEW COMPLETION DATE 3-2-90

NO. OF SAMPLES _____ WATER 6 SOIL _____ OTHER -

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR _____

| | ICP | AA | Hg | CYANIDE |
|---|---|---|---|---|
| 1. HOLDING TIMES | O | O | O | O |
| 2. INITIAL CALIBRATIONS | O | O | O | O |
| 3. CONTINUING CALIBRATIONS | O | O | O | O |
| 4. FIELD BLANKS ('F' = not applicable) | F | F | F | F |
| 5. LABORATORY BLANKS | X | O | O | O |
| 6. ICS | O | | | |
| 7. LCS | O | O | | |
| 8. DUPLICATE ANALYSIS | O | O | O | O |
| 9. MATRIX SPIKE | M | M | O | O |
| 10. MSA | | O | | |
| 11. SERIAL DILUTION | O | | | |
| 12. SAMPLE VERIFICATION | O | O | O | O |
| 13. REGIONAL QC ('F' = not applicable) | F | F | F | F |
| 14. OVERALL ASSESSMENT | M | M | O | O |

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

DPO: [ ] ACTION [X] FYI Region V

# INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 13001 LABORATORY DATA CHEM

SDG NO. MFGL16 DATA USER FIT

SOW 7/88 REVIEW COMPLETION DATE 3-2-90

NO. OF SAMPLES 3 WATER ____ SOIL ____ OTHER ____

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR ____

| | ICP | AA | Hg | CYANIDE |
|---|---|---|---|---|
| 1. HOLDING TIMES | O | O | M | O |
| 2. INITIAL CALIBRATIONS | O | O | O | O |
| 3. CONTINUING CALIBRATIONS | O | O | O | O |
| 4. FIELD BLANKS ("F" = not applicable) | M | O | O | O |
| 5. LABORATORY BLANKS | M | O | O | O |
| 6. ICS | O | | | |
| 7. LCS | O | O | | |
| 8. DUPLICATE ANALYSIS | O | O | O | O |
| 9. MATRIX SPIKE | O | M | O | ~~R~~ Z |
| 10. MSA | | O | | TML 3/2/90 |
| 11. SERIAL DILUTION | O | | | |
| 12. SAMPLE VERIFICATION | O | O | O | O |
| 13. REGIONAL QC ("F" = not applicable) | F | F | F | F |
| 14. OVERALL ASSESSMENT | M | M | ~~Acc~~ M TML 3/2/90 | Z |

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: ____

AREAS OF CONCERN: ____

# QC EXCEPTION SUMMARY REPORT

CASE # 13051
DATA SET #
LAB Q.C.#
DATE:

SITE Spartan Sign Asphalt Co
LAB DATA CHEM
REVIEWED BY Theresa Lombardi

MATRIX: SOIL + WATER
CONC. : LOW

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

| | OVERALL CASE QC | | | | | | | | | MATRIX SPECIFIC QC | | | | | | SAMPLE SPECIFIC QC | | FIELD QC | | | REGIONAL QC | | | OTHER/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Holding Time | Cal Blanks | Init Cal ver | Contin Cal ver | Prep Blk AQ | Prep Blk SOL | ICS %R | LCS % AQ | LCS % SOL | Sol Dup RPD | Sol Spk %R | AQ Dup RPD | AQ Spk %R | Ser Diln AQ | Ser Diln SOL | GFAA Dup | GFAA Spike | Blank | Dup RPD | Spike %R | Blind Blank | Blind Spike %R | Split Sample RPD | |
| | | | OK | OK | | | OK | | | | | | | | | | | | | | | | | |
| Aluminum | | 38.6 | | | 62.9 | 17.5 | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | 52.0 | | | | | | | | | | | | | |
| Arsenic | | 1.1 | | | | | | | | | 71.8 | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | 9.3 | | | | | | | | | | | | | | | | | | | | | | |
| Iron | | 14.8 | | | | 4.5 | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | 54.8 | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | (*) | OK | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | | 1.0/2.4 | | | | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | | 0.0 | | | | | | | | | | | |

(*) SOILS - 29 days
Water - 28 days

6 soils
3 waters — field blank = MEGL29
field duplicate = MEGL23 + MEGL80

# U.S. EPA - CLP

## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

SOW No.: 7/88

| EPA Sample No. | Lab Sample ID. |
|---|---|
| MEGL16 | CLP3775 |
| MEGL17 | CLP3776 |
| MEGL17D | CLP3776 |
| MEGL17S | CLP3776 |
| MEGL18 | CLP3777 |
| MEGL19 | CLP3778 |
| MEGL19D | CLP3778 |
| MEGL19S | CLP3778 |
| MEGL20 | CLP3779 |
| MEGL21 | CLP3780 |
| MEGL21D | CLP3780 |
| MEGL21S | CLP3780 |
| MEGL23 | CLP3801 |
| MEGL23S | CLP3801 |
| MEGL29 | CLP3802 |
| MEGL80 | CLP3803 |
| MEGL80D | CLP3803 |
| MEGL80S | CLP3803 |
| | |
| | |

RECEIVED
JAN 1 1990
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes, were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this 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. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: A. Brent Torgensen Name: A. Brent Torgensen

Date: 1-12-90 Title: Lab Manager

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL16

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3775

Level (low/med): LOW Date Received: 10/25/89

% Solids: 40.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 5200 | | | P |
| 7440-36-0 | Antimony | 28.6 | U | N | P |
| 7440-38-2 | Arsenic | 4.9 | B | N | F |
| 7440-39-3 | Barium | 68.9 | B | | P |
| 7440-41-7 | Beryllium | 0.99 | U | | P |
| 7440-43-9 | Cadmium | 2.0 | U | | P |
| 7440-70-2 | Calcium | 63500 | | | P |
| 7440-47-3 | Chromium | 17.2 | | | P |
| 7440-48-4 | Cobalt | 10.3 | U | | P |
| 7440-50-8 | Copper | 11.0 | B | | P |
| 7439-89-6 | Iron | 13900 | | | P |
| 7439-92-1 | Lead | 17.7 | | S | F |
| 7439-95-4 | Magnesium | 9010 | | | P |
| 7439-96-5 | Manganese | 291 | | | P |
| 7439-97-6 | Mercury | 0.12 | U | | CV |
| 7440-02-0 | Nickel | 18.7 | U | | P |
| 7440-09-7 | Potassium | 1110 | B | | P |
| 7782-49-2 | Selenium | 0.65 | B | | F |
| 7440-22-4 | Silver | 2.5 | U | | P |
| 7440-23-5 | Sodium | 714 | U | | P |
| 7440-28-0 | Thallium | 1.1 | B | | F |
| 7440-62-2 | Vanadium | 19.7 | B | | P |
| 7440-66-6 | Zinc | 63.9 | | | P |
| | Cyanide | 2.5 | U | | AS |

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts: YES

2

Comments:
STICKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL17

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3776

Level (low/med): LOW Date Received: 10/25/89

% Solids: 19.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 18400 | | | P |
| 7440-36-0 | Antimony | 58.3 | U | N | P |
| 7440-38-2 | Arsenic | 15.5 | | NS | F |
| 7440-39-3 | Barium | 163 | B | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 4.0 | U | | P |
| 7440-70-2 | Calcium | 57500 | | | P |
| 7440-47-3 | Chromium | 40.8 | | | P |
| 7440-48-4 | Cobalt | 21.1 | U | | P |
| 7440-50-8 | Copper | 30.2 | | | P |
| 7439-89-6 | Iron | 29600 | | | P |
| 7439-92-1 | Lead | 55.3 | | S | F |
| 7439-95-4 | Magnesium | 12300 | | | P |
| 7439-96-5 | Manganese | 1130 | | | P |
| 7439-97-6 | Mercury | 0.25 | U | | CV |
| 7440-02-0 | Nickel | 38.2 | U | | P |
| 7440-09-7 | Potassium | 3480 | B | | P |
| 7782-49-2 | Selenium | 2.0 | B | | F |
| 7440-22-4 | Silver | 5.0 | U | | P |
| 7440-23-5 | Sodium | 1460 | U | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 51.4 | | | P |
| 7440-66-6 | Zinc | 171 | | | P |
| | Cyanide | 5.0 | U | | AS |

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts: YES

Comments:
STICKS

3

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL18

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3777

Level (low/med): LOW Date Received: 10/25/89

% Solids: 67.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2460 | | | P |
| 7440-36-0 | Antimony | 17.2 | U | N | P |
| 7440-38-2 | Arsenic | 1.8 | B | N | F |
| 7440-39-3 | Barium | 18.4 | B | | P |
| 7440-41-7 | Beryllium | 0.59 | U | | P |
| 7440-43-9 | Cadmium | 1.2 | U | | P |
| 7440-70-2 | Calcium | 26200 | | | P |
| 7440-47-3 | Chromium | 7.9 | | | P |
| 7440-48-4 | Cobalt | 6.2 | U | | P |
| 7440-50-8 | Copper | 3.0 | B | | P |
| 7439-89-6 | Iron | 5080 | | | P |
| 7439-92-1 | Lead | 3.9 | | | F |
| 7439-95-4 | Magnesium | 5860 | | | P |
| 7439-96-5 | Manganese | 130 | | | P |
| 7439-97-6 | Mercury | 0.07 | U | | CV |
| 7440-02-0 | Nickel | 11.3 | U | | P |
| 7440-09-7 | Potassium | 438 | U | | P |
| 7782-49-2 | Selenium | 0.30 | U | | F |
| 7440-22-4 | Silver | 1.5 | U | | P |
| 7440-23-5 | Sodium | 429 | U | | P |
| 7440-28-0 | Thallium | 0.30 | U | | F |
| 7440-62-2 | Vanadium | 9.4 | B | | P |
| 7440-66-6 | Zinc | 19.4 | | | P |
| | Cyanide | 1.5 | U | | AS |

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts: YES

Comments:
STICKS

4

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL19

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3778

Level (low/med): LOW Date Received: 10/25/89

% Solids: 90.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 3340 | | | P |
| 7440-36-0 | Antimony | 12.8 | U | N | P |
| 7440-38-2 | Arsenic | 2.4 | | N | F |
| 7440-39-3 | Barium | 20.6 | B | | P |
| 7440-41-7 | Beryllium | 0.44 | U | | P |
| 7440-43-9 | Cadmium | 0.89 | U | | P |
| 7440-70-2 | Calcium | 7220 | | | P |
| 7440-47-3 | Chromium | 6.9 | | | P |
| 7440-48-4 | Cobalt | 4.7 | U | | P |
| 7440-50-8 | Copper | 2.5 | B | | P |
| 7439-89-6 | Iron | 6860 | | | P |
| 7439-92-1 | Lead | 4.3 | | | F |
| 7439-95-4 | Magnesium | 3990 | | | P |
| 7439-96-5 | Manganese | 51.9 | | | P |
| 7439-97-6 | Mercury | 0.06 | U | | CV |
| 7440-02-0 | Nickel | 8.4 | U | | P |
| 7440-09-7 | Potassium | 327 | U | | P |
| 7782-49-2 | Selenium | 0.22 | U | | F |
| 7440-22-4 | Silver | 1.1 | U | | P |
| 7440-23-5 | Sodium | 321 | U | | P |
| 7440-28-0 | Thallium | 0.22 | U | | F |
| 7440-62-2 | Vanadium | 11.8 | | | P |
| 7440-66-6 | Zinc | 11.6 | | | P |
| | Cyanide | 1.1 | U | | AS |

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: YES

Comments:
PEBBLES

5

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL20

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3779

Level (low/med): LOW Date Received: 10/25/89

% Solids: 94.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2790 | | | P |
| 7440-36-0 | Antimony | 12.3 | U | N | P |
| 7440-38-2 | Arsenic | 3.5 | | NS | F |
| 7440-39-3 | Barium | 23.2 | B | | P |
| 7440-41-7 | Beryllium | 0.43 | U | | P |
| 7440-43-9 | Cadmium | 0.85 | U | | P |
| 7440-70-2 | Calcium | 61700 | | | P |
| 7440-47-3 | Chromium | 11.0 | | | P |
| 7440-48-4 | Cobalt | 4.5 | U | | P |
| 7440-50-8 | Copper | 5.2 | B | | P |
| 7439-89-6 | Iron | 6850 | | | P |
| 7439-92-1 | Lead | 14.5 | | S | F |
| 7439-95-4 | Magnesium | 13300 | | | P |
| 7439-96-5 | Manganese | 166 | | | P |
| 7439-97-6 | Mercury | 0.05 | U | | CV |
| 7440-02-0 | Nickel | 8.1 | U | | P |
| 7440-09-7 | Potassium | 431 | B | | P |
| 7782-49-2 | Selenium | 0.21 | U | | F |
| 7440-22-4 | Silver | 1.1 | U | | P |
| 7440-23-5 | Sodium | 308 | U | | P |
| 7440-28-0 | Thallium | 0.27 | B | | F |
| 7440-62-2 | Vanadium | 12.6 | | | P |
| 7440-66-6 | Zinc | 28.7 | | | P |
| | Cyanide | 1.1 | U | | AS |
| | | | | | |

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: YES

Comments:
ROCKS

6

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL21

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Lab Sample ID: CLP3780

Level (low/med): LOW Date Received: 10/25/89

% Solids: 77.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 8240 | | | P |
| 7440-36-0 | Antimony | 15.1 | U | N | P |
| 7440-38-2 | Arsenic | 4.7 | | N | F |
| 7440-39-3 | Barium | 90.7 | | | P |
| 7440-41-7 | Beryllium | 0.52 | U | | P |
| 7440-43-9 | Cadmium | 1.0 | U | | P |
| 7440-70-2 | Calcium | 3640 | | | P |
| 7440-47-3 | Chromium | 12.5 | | | P |
| 7440-48-4 | Cobalt | 5.5 | U | | P |
| 7440-50-8 | Copper | 7.4 | | | P |
| 7439-89-6 | Iron | 10500 | | | P |
| 7439-92-1 | Lead | 25.0 | | | F |
| 7439-95-4 | Magnesium | 1610 | | | P |
| 7439-96-5 | Manganese | 1560 | | | P |
| 7439-97-6 | Mercury | 0.06 | U | | CV |
| 7440-02-0 | Nickel | 9.9 | U | | P |
| 7440-09-7 | Potassium | 957 | B | | P |
| 7782-49-2 | Selenium | 0.60 | B | | F |
| 7440-22-4 | Silver | 1.3 | U | | P |
| 7440-23-5 | Sodium | 376 | U | | P |
| 7440-28-0 | Thallium | 0.26 | U | W | F |
| 7440-62-2 | Vanadium | 19.7 | | | P |
| 7440-66-6 | Zinc | 48.7 | | | P |
| | Cyanide | 1.3 | U | | AS |

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts: YES

Comments:
ROOTS

7

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL23

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Lab Sample ID: CLP3801

Level (low/med): LOW Date Received: 10/26/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 38.7 | B | | P |
| 7440-36-0 | Antimony | 58.0 | U | | P |
| 7440-38-2 | Arsenic | 13.5 | | S | F |
| 7440-39-3 | Barium | 184 | B | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 4.0 | U | | P |
| 7440-70-2 | Calcium | 130000 | | | P |
| 7440-47-3 | Chromium | 7.0 | U | | P |
| 7440-48-4 | Cobalt | 21.0 | U | | P |
| 7440-50-8 | Copper | 7.0 | U | | P |
| 7439-89-6 | Iron | 1320 | | | P |
| 7439-92-1 | Lead | 1.3 | B | NW | F |
| 7439-95-4 | Magnesium | 33100 | | | P |
| 7439-96-5 | Manganese | 221 | | | P |
| 7439-97-6 | Mercury | 0.10 | U | | CV |
| 7440-02-0 | Nickel | 38.0 | U | | P |
| 7440-09-7 | Potassium | 3380 | B | | P |
| 7782-49-2 | Selenium | 1.0 | U | W | F |
| 7440-22-4 | Silver | 5.0 | U | | P |
| 7440-23-5 | Sodium | 5620 | | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 10.0 | U | | P |
| 7440-66-6 | Zinc | 1090 | | | P |
| | Cyanide | 10.0 | U | N | AS |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

01 8

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGL29

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Lab Sample ID: CLP3802

Level (low/med): LOW Date Received: 10/26/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 78.2 | B | | P |
| 7440-36-0 | Antimony | 58.0 | U | | P |
| 7440-38-2 | Arsenic | 1.0 | U | | F |
| 7440-39-3 | Barium | 16.0 | U | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 4.0 | U | | P |
| 7440-70-2 | Calcium | 471 | U | | P |
| 7440-47-3 | Chromium | 7.0 | U | | P |
| 7440-48-4 | Cobalt | 21.0 | U | | P |
| 7440-50-8 | Copper | 23.0 | B | | P |
| 7439-89-6 | Iron | 42.0 | B | | P |
| 7439-92-1 | Lead | 1.0 | U | NW | F |
| 7439-95-4 | Magnesium | 515 | U | | P |
| 7439-96-5 | Manganese | 5.0 | U | | P |
| 7439-97-6 | Mercury | 0.10 | U | | CV |
| 7440-02-0 | Nickel | 38.0 | U | | P |
| 7440-09-7 | Potassium | 1480 | U | | P |
| 7782-49-2 | Selenium | 1.0 | U | | F |
| 7440-22-4 | Silver | 5.0 | U | | P |
| 7440-23-5 | Sodium | 1450 | U | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 10.0 | U | | P |
| 7440-66-6 | Zinc | 12.0 | U | | P |
| | Cyanide | 10.0 | U | N | AS |

TMC 2/8/90

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEGF80 ~~MEGL80~~ TML 3/2/90

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Lab Sample ID: CLP3803

Level (low/med): LOW Date Received: 10/26/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 56.3 | B | | P |
| 7440-36-0 | Antimony | 58.0 | U | | P |
| 7440-38-2 | Arsenic | 11.9 | | S | F |
| 7440-39-3 | Barium | 174 | B | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 4.0 | U | | P |
| 7440-70-2 | Calcium | 133000 | | | P |
| 7440-47-3 | Chromium | 7.0 | U | | P |
| 7440-48-4 | Cobalt | 21.0 | U | | P |
| 7440-50-8 | Copper | 7.0 | U | | P |
| 7439-89-6 | Iron | 1080 | | | P |
| 7439-92-1 | Lead | 1.0 | U | NW | F |
| 7439-95-4 | Magnesium | 33800 | | | P |
| 7439-96-5 | Manganese | 226 | | | P |
| 7439-97-6 | Mercury | 0.10 | U | | CV |
| 7440-02-0 | Nickel | 38.0 | U | | P |
| 7440-09-7 | Potassium | 3710 | B | | P |
| 7782-49-2 | Selenium | 1.0 | U | W | F |
| 7440-22-4 | Silver | 5.0 | U | | P |
| 7440-23-5 | Sodium | 5740 | | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 10.0 | U | | P |
| 7440-66-6 | Zinc | 1570 | | | P |
| | Cyanide | 10.0 | U | N | AS |
| | | | | | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

10

U.S. EPA - CLP

3
BLANKS

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 30.0 | U | 30.0 | U | 30.0 | U | 38.6 | B | 17.501 | B | P |
| Antimony | 58.0 | U | 58.0 | U | 58.0 | U | 58.0 | U | 11.600 | U | P |
| Arsenic | 1.0 | U | 1.1 | B | 1.0 | U | TML 2/19/90 ~~1.0~~ | ~~U~~ | 0.200 | U | F |
| Barium | 16.0 | U | 16.0 | U | 16.0 | U | 16.0 | U | 3.200 | U | P |
| Beryllium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 0.400 | U | P |
| Cadmium | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U | 0.800 | U | P |
| Calcium | 471.0 | U | 471.0 | U | 471.0 | U | 471.0 | U | 94.200 | U | P |
| Chromium | 7.0 | U | 7.0 | U | 7.0 | U | 7.0 | U | 1.400 | U | P |
| Cobalt | 21.0 | U | 21.0 | U | 21.0 | U | 21.0 | U | 4.200 | U | P |
| Copper | 7.0 | U | 7.0 | U | 7.9 | B | 9.3 | B | 1.400 | U | P |
| Iron | 11.0 | U | 11.0 | U | 14.8 | B | 11.7 | B | 4.584 | B | P |
| Lead | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 0.200 | U | F |
| Magnesium | 515.0 | U | 515.0 | U | 515.0 | U | 515.0 | U | 103.000 | U | P |
| Manganese | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 1.000 | U | P |
| Mercury | 0.1 | ~~B~~ U | 0.1 | ~~B~~ U | 0.1 ~~0.1~~ | ~~B~~ U | 0.1 ~~0.1~~ | ~~B~~ U | 0.050 | U | CV ML 2/19/90 |
| Nickel | 38.0 | U | 38.0 | U | 38.0 | U | 38.0 | U | 7.600 | U | P |
| Potassium | 1478.0 | U | 1478.0 | U | 1478.0 | U | 1478.0 | U | 295.600 | U | P |
| Selenium | ML 2/19/90 1.0 | ~~B~~ U | 1.0 | U | 1.0 | U | 1.0 | U | 0.200 | U | F |
| Silver | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 1.000 | U | P |
| Sodium | 1449.0 | U | 1449.0 | U | 1449.0 | U | 1449.0 | U | 289.800 | U | P |
| Thallium | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 0.200 | U | F |
| Vanadium | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 2.000 | U | P |
| Zinc | 12.0 | U | 12.0 | U | 12.0 | U | 12.0 | U | 2.400 | U | P |
| Cyanide | 20.0 | U | 20.0 | U | 20.0 | U | | | 1.000 | U | AS |
| | | | | | | | | | | | |

U.S. EPA - CLP

3
BLANKS

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | 62.9 | B | P | |
| Antimony | | | | | | | | | 58.0 | U | P | |
| Arsenic | 1.0 | U | 1.0 | U | 1.0 | U | TML 2/8/90 ~~1.0~~ | ~~U~~ | 1.0 | U | F | |
| Barium | | | | | | | | | 16.0 | U | P | |
| Beryllium | | | | | | | | | 2.0 | U | P | |
| Cadmium | | | | | | | | | 4.0 | U | P | |
| Calcium | | | | | | | | | 471.0 | U | P | |
| Chromium | | | | | | | | | 7.0 | U | P | |
| Cobalt | | | | | | | | | 21.0 | U | P | |
| Copper | | | | | | | | | 7.0 | U | P | |
| Iron | | | | | | | | | 11.0 | U | P | |
| Lead | ~~1.0~~ | ~~U~~ | 1.0 | U | 1.0 | U | ~~1.0~~ | ~~U~~ | 1.0 | U | F | TML 2/2/90 |
| Magnesium | | | | | | | | | 515.0 | U | P | |
| Manganese | | | | | | | | | 5.0 | U | P | |
| Mercury | | | | | | | | | 0.1 | U | CV | |
| Nickel | | | | | | | | | 38.0 | U | P | |
| Potassium | | | | | | | | | 1478.0 | U | P | |
| Selenium | ~~2.4~~ | ~~B~~ | 1.0 | U | ~~2.4~~ | ~~B~~ | ~~1.2~~ | ~~B~~ | 1.0 | U | F | TML 2/8/90 |
| Silver | | | | | | | | | 5.0 | U | P | |
| Sodium | | | | | | | | | 1449.0 | U | P | |
| Thallium | | | 1.0 | U | | | | | 1.0 | U | F | |
| Vanadium | | | | | | | | | 10.0 | U | P | |
| Zinc | | | | | | | | | 12.0 | U | P | |
| Cyanide | | | | | | | | | 10.0 | U | AS | |
| | | | | | | | | | | | | |

U.S. EPA - CLP

3
BLANKS

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | |
| Arsenic | 1.0 | U | 1.0 | U | 1.0 | U | | | | | F | TNL 2/8/90 |
| Barium | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | |
| Lead | 1.0 | U | 1.0 | U | ~~1.0~~ | ~~U~~ | ~~1.0~~ | ~~U~~ | | | F | TNL 3/2/90 |
| Magnesium | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | |
| Selenium | 2.7 | B | 2.4 | B | 1.2 | B | | | | | | TNL 2/8/90 |
| Silver | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | |
| | | | | | | | | | | | | |

U.S. EPA - CLP

3
BLANKS

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | |
| Antimony | | | | | | | | | | | |
| Arsenic | 1.1 | B | 1.0 | u | | | | | | | F |
| Barium | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | |
| Calcium | | | | | | | | | | | |
| Chromium | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | |
| Copper | | | | | | | | | | | |
| Iron | | | | | | | | | | | |
| Lead | 1.0 | u | 1.0 | U | 1.0 | u | 1.0 | u | | | F |
| Magnesium | | | | | | | | | | | |
| Manganese | | | | | | | | | | | |
| Mercury | | | | | | | | | | | |
| Nickel | | | | | | | | | | | |
| Potassium | | | | | | | | | | | |
| Selenium | | | | | | | | | | | |
| Silver | | | | | | | | | | | |
| Sodium | | | | | | | | | | | |
| Thallium | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | |
| Zinc | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | |
| | | | | | | | | | | | |

TM 2/8/90

TM 2/12/90

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL17S

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW
% Solids for Sample: 19.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | 75-125 | 2.3613 | | 0.2513 | U | 2.51 | 94.1 | | CV |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | | | | | | | | NR |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL19S

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW
% Solids for Sample: 90.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | 75-125 | 57.6287 | | 12.8461 | U | 110.74 | 52.0 | N | P |
| Arsenic | | | | | | | | | NR |
| Barium | 75-125 | 470.6340 | | 20.5697 | B | 442.97 | 101.6 | | P |
| Beryllium | 75-125 | 11.2441 | | 0.4430 | U | 11.07 | 101.6 | | P |
| Cadmium | 75-125 | 9.5013 | | 0.8859 | U | 11.07 | 85.8 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 56.6255 | | 6.8997 | | 44.30 | 112.2 | | P |
| Cobalt | 75-125 | 110.2205 | | 4.6512 | U | 110.74 | 99.5 | | P |
| Copper | 75-125 | 55.1708 | | 2.5386 | B | 55.37 | 95.1 | | P |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 175.0038 | | 51.8598 | | 110.74 | 111.2 | | P |
| Mercury | | | | | | | | | NR |
| Nickel | 75-125 | 114.1011 | | 8.4164 | U | 110.74 | 103.0 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | 75-125 | 10.1549 | | 1.1074 | U | 11.07 | 91.7 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | 75-125 | 127.4569 | | 11.7715 | | 110.74 | 104.5 | | P |
| Zinc | 75-125 | 126.0511 | | 11.5994 | | 110.74 | 103.4 | | P |
| Cyanide | | | | | | | | | NR |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL21S

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW
% Solids for Sample: 77.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | 75-125 | 12.1206 | | 4.6581 | | 10.39 | 71.8 | N | F |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | 26.6205 | | 24.9636 | | 5.20 | 31.9 | | F |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 2.9967 | | 0.5985 | B | 2.60 | 92.2 | | F |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 12.3706 | | 0.2597 | U | 12.99 | 95.2 | | F |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | 75-125 | 6.1688 | | 1.2987 | U | 6.49 | 95.1 | | AS |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL23S

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 75-125 | 2040.3336 | | 38.7145 | B | 2000.00 | 100.1 | | P |
| Antimony | 75-125 | 502.5101 | | 58.0000 | U | 500.00 | 100.5 | | P |
| Arsenic | 75-125 | 43.7409 | | 13.5294 | | 40.00 | 75.5 | | F |
| Barium | 75-125 | 2125.3772 | | 183.8867 | B | 2000.00 | 97.1 | | P |
| Beryllium | 75-125 | 49.2649 | | 2.0000 | U | 50.00 | 98.5 | | P |
| Cadmium | 75-125 | 46.5180 | | 4.0000 | U | 50.00 | 93.0 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 196.1058 | | 7.0000 | U | 200.00 | 98.1 | | P |
| Cobalt | 75-125 | 495.7197 | | 21.0000 | U | 500.00 | 99.1 | | P |
| Copper | 75-125 | 248.5308 | | 7.0000 | U | 250.00 | 99.4 | | P |
| Iron | 75-125 | 2559.0842 | | 1324.0482 | | 1000.00 | 123.5 | | P |
| Lead | 75-125 | 12.2840 | | 1.3153 | B | 20.00 | 54.8 | N | F |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 724.1575 | | 221.4951 | | 500.00 | 100.5 | | P |
| Mercury | | | | | | | | | NR |
| Nickel | 75-125 | 491.8843 | | 38.0000 | U | 500.00 | 98.4 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 8.5632 | | 1.0000 | U | 10.00 | 85.6 | | F |
| Silver | 75-125 | 47.7322 | | 5.0000 | U | 50.00 | 95.5 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 43.2628 | | 1.0000 | U | 50.00 | 86.5 | | F |
| Vanadium | 75-125 | 500.4185 | | 10.0000 | U | 500.00 | 100.1 | | P |
| Zinc | 75-125 | 1587.7759 | | 1089.3436 | | 500.00 | 99.7 | | P |
| Cyanide | 75-125 | 12.8200 | U | 10.0000 | U | 64.10 | 0.0 | N | AS |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGF805 ~~MEGL805~~ TMM 3/27

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | 75-125 | 0.8463 | | 0.1000 | U | 1.00 | 84.6 | | CV |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | | | | | | | | NR |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL19A

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | 120.32 | | 58.00 | U | 120.0 | 100.3 | | P |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | | | | | | | | NR |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEGL23A

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | 20.00 | U | 20.00 | U | 20.0 | 0.0 | | AS |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEGL17D

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 19.9 % Solids for Duplicate: 19.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | P |
| Antimony | | | | | | | | P |
| Arsenic | | | | | | | | F |
| Barium | | | | | | | | P |
| Beryllium | | | | | | | | P |
| Cadmium | | | | | | | | P |
| Calcium | | | | | | | | P |
| Chromium | | | | | | | | P |
| Cobalt | | | | | | | | P |
| Copper | | | | | | | | P |
| Iron | | | | | | | | P |
| Lead | | | | | | | | F |
| Magnesium | | | | | | | | P |
| Manganese | | | | | | | | P |
| Mercury | | 0.2513 | U | 0.2513 | U | | | CV |
| Nickel | | | | | | | | P |
| Potassium | | | | | | | | P |
| Selenium | | | | | | | | F |
| Silver | | | | | | | | P |
| Sodium | | | | | | | | P |
| Thallium | | | | | | | | F |
| Vanadium | | | | | | | | P |
| Zinc | | | | | | | | P |
| Cyanide | | | | | | | | AS |
| | | | | | | | | |

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEGL19D

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 90.3 % Solids for Duplicate: 91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 3338.8815 | | 3315.9561 | | 0.7 | | P |
| Antimony | | 12.8461 | U | 12.8461 | U | | | P |
| Arsenic | | | | | | | | F |
| Barium | | 20.5697 | B | 20.4668 | B | 0.5 | | P |
| Beryllium | | 0.4430 | U | 0.4430 | U | | | P |
| Cadmium | | 0.8859 | U | 0.8859 | U | | | P |
| Calcium | | 7221.4619 | | 7196.1024 | | 0.4 | | P |
| Chromium | 2.2 | 6.8997 | | 7.4428 | | 7.6 | | P |
| Cobalt | | 4.6512 | U | 4.6512 | U | | | P |
| Copper | | 2.5386 | B | 1.5815 | B | 46.5 | | P |
| Iron | | 6863.5884 | | 6856.7155 | | 0.1 | | P |
| Lead | | | | | | | | F |
| Magnesium | 1107.4 | 3989.4363 | | 3965.4078 | | 0.6 | | P |
| Manganese | | 51.8598 | | 51.6061 | | 0.5 | | P |
| Mercury | | | | | | | | CV |
| Nickel | | 8.4164 | U | 8.4164 | U | | | P |
| Potassium | | 327.3533 | U | 345.6268 | B | 200.0 | | P |
| Selenium | | | | | | | | F |
| Silver | | 1.1074 | U | 1.1074 | U | | | P |
| Sodium | | 320.9302 | U | 320.9302 | U | | | P |
| Thallium | | | | | | | | F |
| Vanadium | 11.1 | 11.7715 | | 11.6035 | | 1.4 | | P |
| Zinc | 4.4 | 11.5994 | | 11.0004 | | 5.3 | | P |
| Cyanide | | | | | | | | AS |
| | | | | | | | | |

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEGL21D

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 77.0 % Solids for Duplicate: 76.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | P |
| Antimony | | | | | | | | P |
| Arsenic | 2.6 | 4.6581 | | 4.2952 | | 8.1 | | F |
| Barium | | | | | | | | P |
| Beryllium | | | | | | | | P |
| Cadmium | | | | | | | | P |
| Calcium | | | | | | | | P |
| Chromium | | | | | | | | P |
| Cobalt | | | | | | | | P |
| Copper | | | | | | | | P |
| Iron | | | | | | | | P |
| Lead | 7.8 | 24.9636 | | 25.4631 | | 2.0 | | F |
| Magnesium | | | | | | | | P |
| Manganese | | | | | | | | P |
| Mercury | | | | | | | | CV |
| Nickel | | | | | | | | P |
| Potassium | | | | | | | | P |
| Selenium | | 0.5985 | B | 0.5229 | B | 13.5 | | F |
| Silver | | | | | | | | P |
| Sodium | | | | | | | | P |
| Thallium | | 0.2597 | U | 0.3236 | B | 200.0 | | F |
| Vanadium | | | | | | | | P |
| Zinc | | | | | | | | P |
| Cyanide | 0.6 | 1.2987 | U | 1.2987 | U | | | AS |
| | | | | | | | | |

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEGF80D ~~MEGL80D~~ TML 3/27A

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 56.2962 | B | 52.7369 | B | 6.5 | | P |
| Antimony | | 58.0000 | U | 58.0000 | U | | | P |
| Arsenic | 10.0 | 11.9101 | | 12.6018 | | 5.6 | | F |
| Barium | | 173.6707 | B | 172.7420 | B | 0.5 | | P |
| Beryllium | | 2.0000 | U | 2.0000 | U | | | P |
| Cadmium | | 4.0000 | U | 4.0000 | U | | | P |
| Calcium | | 132714.1400 | | 130437.5300 | | 1.7 | | P |
| Chromium | | 7.0000 | U | 7.0000 | U | | | P |
| Cobalt | | 21.0000 | U | 21.0000 | U | | | P |
| Copper | | 7.0000 | U | 7.0000 | U | | | P |
| Iron | | 1081.6119 | | 1094.3160 | | 1.2 | | P |
| Lead | | 1.0000 | U | 1.0000 | U | | | F |
| Magnesium | | 33807.8860 | | 33276.7810 | | 1.6 | | P |
| Manganese | | 226.4768 | | 224.1775 | | 1.0 | | P |
| Mercury | | 0.1000 | U | 0.1000 | U | | | CV |
| Nickel | | 38.0000 | U | 38.0000 | U | | | P |
| Potassium | | 3710.7056 | B | 3746.0215 | B | 0.9 | | P |
| Selenium | | 1.0000 | U | 1.0000 | U | | | F |
| Silver | | 5.0000 | U | 5.0000 | U | | | P |
| Sodium | 5000.0 | 5742.2363 | | 5771.0029 | | 0.5 | | P |
| Thallium | | 1.0000 | U | 1.0000 | U | | | F |
| Vanadium | | 10.0000 | U | 10.0000 | U | | | P |
| Zinc | | 1566.7727 | | 1540.6422 | | 1.7 | | P |
| Cyanide | 5.0 | 10.0000 | U | 13.5140 | U | | | AS |
| | | | | | | | | |

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

ICP ID Number: ICP-B Date: 10/13/89

Flame AA ID Number:

Furnace AA ID Number:

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | 308.22 | | 200.0 | 30.0 | P |
| Antimony | 206.84 | | 60.0 | 58.0 | P |
| Arsenic | | | 10.0 | | |
| Barium | 493.41 | | 200.0 | 16.0 | P |
| Beryllium | 313.04 | | 5.0 | 2.0 | P |
| Cadmium | 228.80 | | 5.0 | 4.0 | P |
| Calcium | 315.89 | | 5000.0 | 471.0 | P |
| Chromium | 267.72 | | 10.0 | 7.0 | P |
| Cobalt | 228.62 | | 50.0 | 21.0 | P |
| Copper | 324.75 | | 25.0 | 7.0 | P |
| Iron | 259.94 | | 100.0 | 11.0 | P |
| Lead | | | 3.0 | | |
| Magnesium | 279.08 | | 5000.0 | 515.0 | P |
| Manganese | 257.61 | | 15.0 | 5.0 | P |
| Mercury | | | 0.2 | | |
| Nickel | 231.60 | | 40.0 | 38.0 | P |
| Potassium | 766.49 | | 5000.0 | 1478.0 | P |
| Selenium | | | 5.0 | | |
| Silver | 328.07 | | 10.0 | 5.0 | P |
| Sodium | 589.00 | | 5000.0 | 1449.0 | P |
| Thallium | | | 10.0 | | |
| Vanadium | 292.40 | | 50.0 | 10.0 | P |
| Zinc | 213.86 | | 20.0 | 12.0 | P |
| | | | | | |

Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

ICP ID Number: Date: 10/17/89

Flame AA ID Number:

Furnace AA ID Number: AAS-ZEA

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | 193.70 | BZ | 10.0 | 1.0 | F |
| Barium | | | 200.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | | | 5.0 | | |
| Calcium | | | 5000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 50.0 | | |
| Copper | | | 25.0 | | |
| Iron | | | 100.0 | | |
| Lead | 283.30 | BZ | 3.0 | 1.0 | F |
| Magnesium | | | 5000.0 | | |
| Manganese | | | 15.0 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 40.0 | | |
| Potassium | | | 5000.0 | | |
| Selenium | 196.00 | BZ | 5.0 | 1.0 | F |
| Silver | | | 10.0 | | |
| Sodium | | | 5000.0 | | |
| Thallium | 276.80 | BZ | 10.0 | 1.0 | F |
| Vanadium | | | 50.0 | | |
| Zinc | | | 20.0 | | |
| | | | | | |



Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: DATACHEM, INC. Contract: 68-W8-0015

Lab Code: DATAC Case No.: 13001 SAS No.: SDG No.: MEGL16

ICP ID Number: Date: 10/26/89

Flame AA ID Number:

Furnace AA ID Number:

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | | | 10.0 | | |
| Barium | | | 200.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | | | 5.0 | | |
| Calcium | | | 5000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 50.0 | | |
| Copper | | | 25.0 | | |
| Iron | | | 100.0 | | |
| Lead | | | 3.0 | | |
| Magnesium | | | 5000.0 | | |
| Manganese | | | 15.0 | | |
| Mercury | 253.70 | | 0.2 | 0.1 | CV |
| Nickel | | | 40.0 | | |
| Potassium | | | 5000.0 | | |
| Selenium | | | 5.0 | | |
| Silver | | | 10.0 | | |
| Sodium | | | 5000.0 | | |
| Thallium | | | 10.0 | | |
| Vanadium | | | 50.0 | | |
| Zinc | | | 20.0 | | |
| | | | | | |



Comments: