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**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**


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** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 08-01-2006
EMAX Batch No.: 06G027

Attn: Ron Halpern

Arcadis
1400 North Harbor Blvd, Ste 700
Fullerton CA 92835

Subject: Laboratory Report
Project: Omega Chemical

---

Enclosed is the Laboratory report for samples received on 07/07/06.
The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| OC2-PMW23B-0-13 | G027-01 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| | | | | 1,2,3-TRICHLOROPROPANE SIM |
| | | | | 1,4-DIOXANE BY 8270 SIM |
| | | | | ANIONS BY IC |
| | | | | CHROMIUM HEXAVALENT BY IC |
| | | | | CYANIDE TOTAL |
| | | | | SILICA, DISSOLVED |
| | | | | METALS, DISSOLVED BY ICP-MS |
| | | | | MERCURY DISSOLVED |
| | | | | PERCHLORATE BY IC |
| | | | | SEMIVOLATILE ORGANICS SIM |
| | | | | SOLIDS TOTAL DISSOLVED |
| | | | | TKN |
| | | | | TOTAL ORGANIC CARBON |
| | | | | N-NITROSODIMETHYLAMINE BY GCMS ( |
| | | | | SEMIVOLATILE ORGANICS BY GCMS |
| O2-00-W-4-11 | G027-02 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| OC2-PMW23C-0-14 | G027-03 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| | | | | 1,2,3-TRICHLOROPROPANE SIM |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| | | | | 1,4-DIOXANE BY 8270 SIM |
| | | | | ANIONS BY IC |
| | | | | CHROMIUM HEXAVALENT BY IC |
| | | | | CYANIDE TOTAL |
| | | | | SILICA, DISSOLVED |
| | | | | METALS, DISSOLVED BY ICP-MS |
| | | | | MERCURY DISSOLVED |
| | | | | PERCHLORATE BY IC |
| | | | | SEMIVOLATILE ORGANICS SIM |
| | | | | SOLIDS TOTAL DISSOLVED |
| | | | | TKN |
| | | | | TOTAL ORGANIC CARBON |
| | | | | N-NITROSODIMETHYLAMINE BY GCMS ( |
| | | | | SEMIVOLATILE ORGANICS BY GCMS |
| TB-06-06-06 | G027-04 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| OC2-PMW23C-1-15 | G027-05 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| | | | | 1,2,3-TRICHLOROPROPANE SIM |
| | | | | 1,4-DIOXANE BY 8270 SIM |
| | | | | ANIONS BY IC |
| | | | | CHROMIUM HEXAVALENT BY IC |
| | | | | CYANIDE TOTAL |
| | | | | SILICA, DISSOLVED |
| | | | | METALS, DISSOLVED BY ICP-MS |
| | | | | MERCURY DISSOLVED |
| | | | | PERCHLORATE BY IC |
| | | | | SEMIVOLATILE ORGANICS SIM |
| | | | | SOLIDS TOTAL DISSOLVED |
| | | | | TKN |
| | | | | TOTAL ORGANIC CARBON |
| | | | | N-NITROSODIMETHYLAMINE BY GCMS ( |
| | | | | SEMIVOLATILE ORGANICS BY GCMS |
| TB-01-06-06 | G027-06 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| OC2-PMW23D-0-16 | G027-07 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| | | | | 1,2,3-TRICHLOROPROPANE SIM |
| | | | | 1,4-DIOXANE BY 8270 SIM |
| | | | | ANIONS BY IC |
| | | | | CHROMIUM HEXAVALENT BY IC |
| | | | | CYANIDE TOTAL |
| | | | | SILICA, DISSOLVED |
| | | | | METALS, DISSOLVED BY ICP-MS |
| | | | | MERCURY DISSOLVED |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|---|---|---|---|---|
| | | | | PERCHLORATE BY IC |
| | | | | SEMIVOLATILE ORGANICS SIM |
| | | | | SOLIDS TOTAL DISSOLVED |
| | | | | TKN |
| | | | | TOTAL ORGANIC CARBON |
| | | | | N-NITROSODIMETHYLAMINE BY GCMS ( |
| | | | | SEMIVOLATILE ORGANICS BY GCMS |
| OC2-PMW14-0-12 | G027-08 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| | | | | 1,2,3-TRICHLOROPROPANE SIM |
| | | | | 1,4-DIOXANE BY 8270 SIM |
| | | | | ANIONS BY IC |
| | | | | CHROMIUM HEXAVALENT BY IC |
| | | | | CYANIDE TOTAL |
| | | | | SILICA, DISSOLVED |
| | | | | METALS, DISSOLVED BY ICP-MS |
| | | | | MERCURY DISSOLVED |
| | | | | PERCHLORATE BY IC |
| | | | | SEMIVOLATILE ORGANICS SIM |
| | | | | SOLIDS TOTAL DISSOLVED |
| | | | | TKN |
| | | | | TOTAL ORGANIC CARBON |
| | | | | N-NITROSODIMETHYLAMINE BY GCMS ( |
| | | | | SEMIVOLATILE ORGANICS BY GCMS |
| OC2-00-W-2-9 | G027-09 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |
| OC2-00-W-4-10 | G027-10 | 07/07/06 | WATER | VOLATILE ORGANICS BY GC/MS |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE
EMAX CONTROL NO. * 06G027
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: Omega Chemical OU-2
COORDINATOR: Ron Halpern
TEL: 949-294-1532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: Ron Halpern
COMPANY: ARCADIS
ADDRESS: 1400 N. Harbor Blvd, #700, Fullerton, CA 92835
EMAX PM: Kam Pang

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: VOCs - 8260B; 123 TCP 8260SIM; TOC - 415.1; SVOC - 8270C; NDMA - 8270C; 1,4-Dioxane 8270C; Dissolved METAL Total + Boron + Si; TKN - 351.3

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | VOCs (HC) | 123 TCP (HC) | TOC (HC) | SVOC (IC) | NDMA (IC) | 1,4-Dioxane (IC) | Dissolved METAL (IC) | TKN (HS) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OC2-PMW23B-D-13 | | 7/7/06 | 1215 | 3 | 40ml | VOA | GW | | X | | | | | | | | |
| 2 | | | | | 3 | | | | | | X | | | | | | | |
| 3 | | | | | 1 | | | | | | | X | | | | | | |
| 4 | | | | | 2 | 1 H | Amber | | | | | | X | | | | | |
| 5 | | | | | 2 | | | | | | | | | X | | | | |
| 6 | | | | | 1 | | | | | | | | | | X | | | |
| 7 | | | | | 1 | 500 | Poly | | | | | | | | | X | | |
| 8 | | | | | 1 | 500 | | | | | | | | | | | X | |
| 9 | | | | | 1 | 250 | | | | | | | | | | | | |
| 10 | | | | | 1 | 125 | | | | | | | | | | | | |

Instructions
1) Dissolved Tal METALS + Boron + Si FILTER IN Lab, USE EPA 6010/200.7, 8, 245.1 (2) SEND PDF + EXCEL EDF TO RON HALPERN
3) SEE ATTACHED SPREADSHEET FOR ANALYTICAL DETAILS

| Cooler # | Temp. (°C) |
|---|---|
| 1 | 3.0 |
| 2 | 3.5 |
| 3 | 2.8 |
| 4 | 3.6 |
| 5 | 3.2 |

Sample #s

SAMPLER
COURIER/AIRBILL

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| (1) ~~Dissolved Metals Total + Boron~~ | 7/7/06 | 1730 | |
| | 7/7/06 | 1893 | |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise

1 of 2

2 of 2

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.000
SAMPLE STORAGE
EMAX CONTROL NO. *
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: OMEGA chemical OU-2
COORDINATOR: RON HALPERN
TEL: 949-294-1511 FAX: EMAIL: rhalpern@arcadis-us-com
SEND REPORT TO: RON HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N. Harbor Blvd #200, Fullerton, CA 92835
EMAX PM: Kam Pang

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: ANIONS TDS, PHC, Chloride, Cr+6; Cyanide - 335.2; VOCs - 8260B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| | SAMPLE ID LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | IC | SH | | HC | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | OC2-PMW-23B-0-13 | | 7/7 | 1215 | 1 | 250 | poly | GW | | X | | | | | | | |
| | 2 | ↓ | | | ↓ | 1 | 125 | ↓ | ↓ | | | X | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | |
| | 6 | | | | | | | | | | | | | | | | | |
| 2 | 7 | 02-00-W-4-11 | | 7/7 | | 1 | 40m | VOA | | | | | | X | | | | Trip |
| | 8 | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |

Instructions (1) anions Bromide, chloride, fluoride, sulfates, nitrate nitrites by EPA 300.0, TDS by EPA 160.1, perchlorate by EPA 314 Hexchrome by EPA 218.6

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

COURIER/AIRBILL

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| | 7/7/06 | 1730 | |
| | 7/11/06 | 1843 | |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

12071

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.0001
SAMPLE STORAGE

EMAX CONTROL NO. * 06G027
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL OU-2
COORDINATOR: RON HALPERN
TEL: 949-294-1532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: RON HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N. Harbor Blvd #700
Fullerton, CA 92835
EMAX PM: KAM PANG

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: VOCs 8260 B; 123 TCP 8260 SIM; TOC - 415.1; SVOCs 8270 C; NDMA 8270 C; 1,4 Dioxane 8270 C; dissolve met Tal Boron CR; TKN - 351.3

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| LAB | SAMPLE ID / CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | VOCs 8260 B (HC) | 123 TCP 8260 SIM (HC) | TOC - 415.1 (HC) | SVOCs 8270 C (IC) | NDMA 8270 C (IC) | 1,4 Dioxane 8270 C (IC) | dissolve met Tal Boron (IC) | TKN - 351.3 (HS) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OC2-PMW23C-0-14 | | 7-7-06 | [illegible] | 3 | 40mL | VOA | GW | | X | | | | | | | | |
| 2 | | | | 1440 | 3 | | | | | | X | | | | | | | |
| 3 | | | | | 1 | | | | | | | X | | | | | | |
| 4 | | | | | 1 | | | | | | | | X | | | | | |
| 5 | | | | | 2 | | | | | | | | | X | | | | |
| 6 | | | | | 1 | | | | | | | | | | X | | | |
| 7 | | | | | 1 | | | | | | | | | | | X | | |
| 8 | | | | | 1 | | | | | | | | | | | | X | |
| 9 | | | | | 1 | | | | | | | | | | | | | |
| 10 | | | | | 1 | | | | | | | | | | | | | |

3

Instructions (1) dissolved Tal metals + Boron + Si filter in lab, use EPA 6010/7000 200.8, 245.1
(2) Send PDFT Excel EDF to Ron Hal Pern
(3) See attached spreadsheet for analytical details

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| [signature] | 7/7/06 | 1730 | [signature] |
| [signature] | 7/7/06 | 1843 | [signature] |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1005

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.0001
SAMPLE STORAGE
EMAX CONTROL NO. * 066027
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL OU-2
COORDINATOR: ROW HALPERN
TEL: 949-394-1532 FAX: EMAIL: rhalpern@arcadis-US.com
SEND REPORT TO: ROW HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N HARBOR BLVD #700, FULLERTON, CA 92835
EMAX PM:

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: Anions, Perchlorate, Cr+6; Cyanide - 335.2; VOCs 8260B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | IC | HC | | HN | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | OC2-PMW23C-0-14 | | 7-7-06 | [redacted] | 1 | 250mL | Poly | GW | | X | | | | | | | | |
| 4 | | | | 1440 | 1 | 125mL | Poly | | | | X | | | | | | | |
| 3 | | | | | | | | | | | | | X | | | | | |
| 4 | TB-01-06-06 | | | | | | | | | | | | X | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | |

Instructions: (1) ANIONS Bromide, Chloride, Fluoride, Sulfates, Nitrates, Nitrites by EPA 300.0, TDS by EPA 160.1, [redacted] Perchlorate by EPA 314 Hex. Chrome by EPA 218.6

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER
COURIER/AIRBILL

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| [signature] | 7/7/06 | 1730 | [signature] |
| [signature] | 7/7/06 | 1843 | [signature] |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1006

# CHAIN OF CUSTODY

06G027

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER CA000646.0001

SAMPLE STORAGE

EMAX CONTROL NO. *CA000646.0001

PROJECT CODE:

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL OU2
COORDINATOR: RON HALPERN
TEL: 949-294-1532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: RON HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N. HARBOR BLVD #700, FULLERTON, CA 92835
EMAX PM:

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: VOCs 8260B; 123-TCP 8260 SIM; TOC-4151.1; SVOC-8270C; NDMA-8270C; 1,4 Dioxane 8270C; Dissolved Metals + Boron + Si; TKN-351.3

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☒ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☐

| LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | HC | HC | HC | IC | IC | IC | IC | HS | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OC1-AMW-23C-1-15 | | 7-7-06 | 1440 | 3 | 40mL | VOA | GW | | X | | | | | | | | |
| 2 | | | | | 3 | | | | | | X | | | | | | | |
| 3 | | | | | 1 | | | | | | | X | | | | | | |
| 4 | | | | | 2 | 1 L | Amber | | | | | | X | | | | | |
| 5 | | | | | 2 | | | | | | | | | X | | | | |
| 6 | | | | | 1 | | | | | | | | | | X | | | |
| 7 | | | | | 1 | 500 | Poly | | | | | | | | | X | | |
| 8 | | | | | 1 | 500 | | | | | | | | | | | X | |
| 9 | | | | | 1 | 250 | | | | | | | | | | | | |
| 10 | | | | | 1 | 125 | | | | | | | | | | | | |

5

Instructions (1) dissolved Total Metals + Boron + Si. Filter in lab, use EPA 6010/200.8, 245.1
(2) Send PDF Excel EDF to Ron Halpern
3) See attached spread sheet for anal. details

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER:

COURIER/AIRBILL:

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| | 7/7/06 | 1730 | |
| | 7/7/06 | 1843 | |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

4997

2 of 2

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.00001
SAMPLE STORAGE

EMAX CONTROL NO. *
PROJECT CODE: CA000646.00001

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL OU-2
COORDINATOR: RON HALPERN
TEL: 949-299-1531 FAX: EMAIL: RHALPERN@ARCADIS-US.COM
SEND REPORT TO: RON HALPERN
COMPANY: 1400 N. HARBOR BLVD. #700
ADDRESS: FULLERTON, CA 92835
EMAX PM:

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: Anions TDS Perchlorate, Cr+6; Cyanide -335.6; VOC 8260B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| LAB | SAMPLE ID / CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | PRESERVATIVE CODE IC | SH | | HC | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 1 | OC2-PMW23C-1-15 | | 7-7-06 | 1440 | 1 | 250 | Poly | GW | | X | | | | | | | | |
| 2 | ↓ | | ↓ | ↓ | 1 | 125 | ↓ | ↓ | | | X | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 6 4 | TB-01-06-06 | | | | 1 | 40mL | VOA | | | | | | X | | | | | TRIP |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | |

Instructions (1) ANIONS BROMIDE, CHLORIDE, FLUORIDE, SULFATES, NITRATES NITRITES by EPA-300.0, TDS by EPA 160.1, PERCHLORATES by EPA 314, HEXCHROME by EPA-218.6

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

| RELINQUISHED BY | Date | Time |
|---|---|---|
| [signature] | 7/7/06 | 1730 |
| [signature] | 7/7/06 | 1893 |

COURIER/AIRBILL

| RECEIVED BY |
|---|
| [signature] |
| [signature] |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1008

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.0001
SAMPLE STORAGE
EMAX CONTROL NO. *
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICALS OU 2
COORDINATOR: RON HALPERN
TEL: 949-294-1532 FAX: EMAIL: r.halpern@arcadis-us.com
SEND REPORT TO: RON HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N. HARBOR BLVD #700, FULLERTON CA 91835
EMAX PM:

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: VOCs 8260B; 1,2,3 TCP 8260 SIM; TOC 415.1; SVOCs 8270C; NDMA - 8270C; 1,4 Dioxane 8270C; Dissolved TAL Metals + Boron + Si; TKN 351.2

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☒ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | HC | HC | HC | IC | IC | IC | IC | HS | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AC2-PMW23D-0-16 | | 7-7-06 | 1600 | 3 | 40ml | VOA | GW | | X | | | | | | | | |
| 2 | | | | | 3 | | | | | | X | | | | | | | |
| 3 | | | | | 1 | | | | | | | X | | | | | | |
| 4 | | | | | 2 | 1L | amber | | | | | | X | | | | | |
| 5 | | | | | 2 | | | | | | | | | X | | | | |
| 6 | | | | | 1 | | | | | | | | | | X | | | |
| 7 | | | | | 1 | 500 | Poly | | | | | | | | | X | | |
| 8 | | | | | 1 | 500 | | | | | | | | | | | X | |
| 9 | | | | | 1 | 250 | | | | | | | | | | | | |
| 10 | | | | | 1 | 125 | | | | | | | | | | | | |

Instructions (1) Dissolved TAL Metals + Boron + Si ; Filter in Lab use EPA 6010/7000; 200.8, 245.1
(2) Send PDF & Excel EDD to Ron Halpern
(3) See Attached Spread Sheet for Analytical Details

Cooler # | Temp. (°C) | Sample #s

SAMPLER
COURIER/AIRBILL

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| | 7/7/06 | 1730 | |
| | 7/7/06 | 1843 | |

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

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1005

06G027 2 of 2

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.0001
SAMPLE STORAGE

EMAX CONTROL NO. *
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: OMEGA Chemical OU 2
COORDINATOR: Ron Halpern
TEL: 949 294 7532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: Ron Halpern
COMPANY: ARCADIS
ADDRESS: 1400 N Harbor Blvd #700
Fullerton CA 92835
EMAX PM:

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☒ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☐

| LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | PRESERVATIVE CODE IC | SH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OC2-PMW23D-0-16 | | 7-7-06 | 1600 | 1 | 250 | Poly | GW | | X | | | | | | | |
| 2 | | | ↓ | ↓ | 1 | 125 | ↓ | ↓ | | | X | | | | | | |
| 3 | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | |

7 of 8

Instructions: 1) Anions, Bromide, chloride, fluoride, sulfates nitrates nitrites by EPA 300.0, TDS by EPA 160.1, Perchlorate by EPA 314.1 Hex chrome by EPA-218.6

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

| RELINQUISHED BY | Date | Time |
|---|---|---|
| [signature] | 7/7/06 | 1730 |
| [signature] | 7/7/06 | 1843 |

COURIER/AIRBILL

| RECEIVED BY |
|---|
| [signature] |
| [signature] |

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1010

Pg1

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.0001
SAMPLE STORAGE
EMAX CONTROL NO. *
PROJECT CODE: CA000 646.0001

CLIENT: ARCADIS
PROJECT: Omega Chemical OU-2
COORDINATOR: Ron Halpern
TEL: 949-294-1532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: RON HALPERN
COMPANY: ARCADIS
ADDRESS: 1400 N. Harbor - Blvd, Suite 700, Fullerton, CA 92835
EMAX PM: Kam Pang

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC = Ice |
| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☒ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| SAMPLE ID LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | VOCs - 8260B (HC) | 123-TCP 8260 SIM (HC) | TOC - 415.1 (HC) | SVOC - 8270C (IC) | NDMA - 8270C (IC) | 1,4-Dioxane 8270C (IC) | Dissolved TAL Metals (+Boron+Si) (IC) | TKN - 351.3 (HS) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MOC2-PMW14-0-12 | | 7/7/06 | 0945 | 3 | 40ml | VOA | GW | | X | | | | | | | | |
| 2 | | | | | 3 | | | | | | X | | | | | | | |
| 3 | | | | | 1 | | | | | | | X | | | | | | |
| 4 | | | | | 2 | 1L | Amber | | | | | | X | | | | | |
| 5 | | | | | 2 | | | | | | | | | X | | | | |
| 6 | | | | | 1 | | | | | | | | | | X | | | |
| 7 | | | | | 1 | 500 | Poly | | | | | | | | | X | | |
| 8 | | | | | 1 | 500 | | | | | | | | | | | X | |
| 9 | | | | | 1 | 250 | | | | | | | | | | | | |
| 10 | | | | | 1 | 125 | | | | | | | | | | | | |

8

Instructions (1) Dissolved TAL Metals + Boron + Si: Filter in lab.
use EPA 6010/7000, 200.8, 245.1
(2) Send PDF + Excel EDF to Ron Halpern
(3) See Attached Spreadsheet for Analytical Details.

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| | 7/7/06 | 1730 | |
| | 7/7/06 | 1893 | |

COURIER/AIRBILL

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1011

Pg 2

# CHAIN OF CUSTODY

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Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: CA000646.000
SAMPLE STORAGE
EMAX CONTROL NO. *
PROJECT CODE: CA000646.0001

CLIENT: ARCADIS
PROJECT: Omega Chemical OU-2
COORDINATOR: Ron Halpern
TEL: 949-294-1532 FAX: EMAIL: rhalpern@arcadis-us.com
SEND REPORT TO: Ron Halpern
COMPANY: ARCADIS
ADDRESS: 1400 N Harbor Blvd, #700, Fullerton, CA 92835
EMAX PM: Kam Pang

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
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| GW=Ground Water | HC = HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/ Sediment | ST=Na2S2O3 |
| WP=Wipes PP=Pure Products | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: Anions TDS, perchlorate, etc.76; Cyanide - 335.2; VOCs - 8260B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

| | SAMPLE ID LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | DATE | TIME | CONTAINER NO. | SIZE | TYPE | MATRIX CODE | QC | IC | SH | | HC | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 1 | OC2-PMW14-0-12 | | 7/7/06 | 0915 | 1 | 250 | Poly | GW | | X | | | | | | | | |
| | 2 | ↓ | | ↓ | ↓ | 1 | 125 | ↓ | ↓ | | | X | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | |
| 9 | 4 | OC2-00-W-2-9 | | 7/7/06 | | 3 | 40ml | VOA | | | | | | X | | | | | |
| 10 | 5 | OC2-00-W-4-10 | | 7/7/06 | | 1 | ↓ | ↓ | | | | | | X | | | | | Trip |
| | 6 | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | |

Instructions: (1) Anions: Bromide, Chloride, Fluoride, Sulfates, nitrates, nitrites by EPA 300.0; TDS by EPA 160.1; perchlorate by EPA 314; Hex Chrome by EPA 218.6

| Cooler # | Temp. (°C) | Sample #s |
|---|---|---|
| | | |

SAMPLER

COURIER/AIRBILL

| RELINQUISHED BY | Date | Time | RECEIVED BY |
|---|---|---|---|
| | 7/7/06 | 1730 | |
| | 7/7/06 | 1843 | |

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1012

# SAMPLE RECEIPT FORM 1

| Type of Delivery | Delivered By/Airbill | ECN | 06G027 |
|---|---|---|---|
| ☑ EMAX Courier | SEE C.O.C | Recepient | LUNA |
| ☐ Client Delivery | | Date | 070706 |
| ☐ Third Party | | Time | 18:43 |

## COC Inspection

| | | |
|---|---|---|
| ☑ Client Name | ☑ Sampler Name | ☑ Sampling Date/Time/Location |
| ☑ Address | ☑ Courier Signature/Date/Time | ☑ Analysis Required |
| ☑ Client PM/FC | ☑ TAT | ☑ Matrix |
| ☑ Tel #/Fax # | ☑ Sample ID | ☑ Preservative (if any) |
| Safety Issues ☑ None | ☐ High Concentrations expected | ☐ Superfund Site Samples |
| Comments: ☐ Rad Screening Required | | |

## Packaging Inspection

| | | | | |
|---|---|---|---|---|
| Container | ☑ Cooler | ☐ Box | ☐ | ☐ |
| Condition | ☐ Custody Seal | ☐ Intact | ☐ Damaged | ☐ |
| Packaging | ☑ Bubble Pack | ☐ Styrofoam | ☐ Sufficient | ☐ |
| Temperatures | ☑ Cooler 1 3.0 | ☑ Cooler 2 T-3.5 | ☑ Cooler 3 T-2.8 | ☑ Cooler 4 3.6 |
| | ☑ Cooler 5 T-3.2 | ☐ Cooler 6 ____ | ☐ Cooler 7 ____ | ☐ Cooler 8 ____ |
| | ☐ Cooler 9 ____ | ☐ Cooler 10 ____ | ☐ Cooler 11 ____ | ☐ Cooler 12 ____ |

Comments:

| LSCID | Client ID | Discrepancy | Corrective Action |
|---|---|---|---|
| 03 | OC2-PMW23C-0-14 | TIME READS ON LABELS 14:30 | Follow COC |
| | | VS 1440 ON C.O.C | |
| 05 | OC2PMW23C-1-15 | TIME READS ON LABELS 14:30 | |
| | | VS 1440 ON COC. | |
| 09 | OC2-00-W-2-9 | TIME READS ON VIALS 9:25 | |
| | | BUT NO TIME ON COC. | |
| -07 | | NOT ALL ANALYSES REQSTD ON COC. | Analyze also for Anions, TDS, Perchlorate, CRVI, CN- as per client! |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling [signature] Date 070706

SRF [signature] Date 7/7/06

PM [signature] Date 7/10/06

## REPORTING CONVENTIONS

### DATA QUALIFIERS:

| Lab Qualifier | AFCEE Qualifier | Description |
|---|---|---|
| J | F | Indicates that the analyte is positively identified and the result is less than RL but greater than MDL. |
| N | | Indicates presumptive evidence of a compound. |
| B | B | Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level. |
| E | J | Indicates that the result is above the maximum calibration range. |
| * | * | Out of QC limit. |

**Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.**

### ACRONYMS AND ABBREVIATIONS:

| | |
|---|---|
| CRDL | Contract Required Detection Limit |
| RL | Reporting Limit |
| MRL | Method Reporting Limit |
| PQL | Practical Quantitation Limit |
| MDL | Method Detection Limit |
| DO | Diluted out |

### DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 5030B/8260B
## VOLATILE ORGANICS BY GC/MS

Ten (10) water samples were received on 07/07/06 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-005

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | V005G17Q | 1 | NA | 07/12/0614:40 | 07/12/0614:40 | RGQ176 | RGQ022 | V005G17 | Method Blank |
| LCS1W | V005G17L | 1 | NA | 07/12/0612:49 | 07/12/0612:49 | RGQ173 | RGQ022 | V005G17 | Lab Control Sample (LCS) |
| LCD1W | V005G17C | 1 | NA | 07/12/0613:25 | 07/12/0613:25 | RGQ174 | RGQ022 | V005G17 | LCS Duplicate |
| O2-00-W-4-11 | G027-02 | 1 | NA | 07/12/0621:28 | 07/12/0621:28 | RGQ187 | RGQ022 | V005G17 | Field Sample |
| OC2-PMW23B-0-13 | G027-01 | 1 | NA | 07/12/0622:05 | 07/12/0622:05 | RGQ188 | RGQ022 | V005G17 | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | 1 | NA | 07/12/0622:42 | 07/12/0622:42 | RGQ189 | RGQ022 | V005G17 | Field Sample |
| MBLK2W | V005G19Q | 1 | NA | 07/13/0604:14 | 07/13/0604:14 | RGQ198 | RGQ022 | V005G19 | Method Blank |
| LCS2W | V005G19L | 1 | NA | 07/13/0602:23 | 07/13/0602:23 | RGQ195 | RGQ022 | V005G19 | Lab Control Sample (LCS) |
| LCD2W | V005G19C | 1 | NA | 07/13/0603:00 | 07/13/0603:00 | RGQ196 | RGQ022 | V005G19 | LCS Duplicate |
| TB-06-06-06 | G027-04 | 1 | NA | 07/13/0604:51 | 07/13/0604:51 | RGQ199 | RGQ022 | V005G19 | Field Sample |
| TB-01-06-06 | G027-06 | 1 | NA | 07/13/0605:28 | 07/13/0605:28 | RGQ200 | RGQ022 | V005G19 | Field Sample |
| OC2-00-W-4-10 | G027-10 | 1 | NA | 07/13/0606:05 | 07/13/0606:05 | RGQ201 | RGQ022 | V005G19 | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | 1 | NA | 07/13/0606:42 | 07/13/0606:42 | RGQ202 | RGQ022 | V005G19 | Field Sample |
| OC2-PMW14-0-12 | G027-08 | 1 | NA | 07/13/0607:56 | 07/13/0607:56 | RGQ204 | RGQ022 | V005G19 | Field Sample |
| OC2-00-W-2-9 | G027-09 | 1 | NA | 07/13/0608:33 | 07/13/0608:33 | RGQ205 | RGQ022 | V005G19 | Field Sample |
| MBLK3W | V005G22Q | 1 | NA | 07/14/0605:39 | 07/14/0605:39 | RGQ238 | RGQ022 | V005G22 | Method Blank |
| LCS3W | V005G22L | 1 | NA | 07/14/0603:47 | 07/14/0603:47 | RGQ235 | RGQ022 | V005G22 | Lab Control Sample (LCS) |
| LCD3W | V005G22C | 1 | NA | 07/14/0604:24 | 07/14/0604:24 | RGQ236 | RGQ022 | V005G22 | LCS Duplicate |
| OC2-PMW23C-0-14DL | G027-03T | 50 | NA | 07/14/0606:16 | 07/14/0606:16 | RGQ239 | RGQ022 | V005G22 | Diluted Sample |
| OC2-PMW23C-1-15DL | G027-05T | 50 | NA | 07/14/0606:53 | 07/14/0606:53 | RGQ240 | RGQ022 | V005G22 | Diluted Sample |
| OC2-PMW23D-0-16 | G027-07R | 1 | NA | 07/14/0607:30 | 07/14/0607:30 | RGQ241 | RGQ022 | V005G22 | Field Sample |
| OC2-PMW14-0-12DL | G027-08T | 10 | NA | 07/14/0608:07 | 07/14/0608:07 | RGQ242 | RGQ022 | V005G22 | Diluted Sample |

FN - Filename
% Moist - Percent Moisture

# SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 22:05 |
| Sample ID: | OC2-PMW23B-0-13 | Date Analyzed: | 07/12/06 22:05 |
| Lab Samp ID: | G027-01 | Dilution Factor: | 1 |
| Lab File ID: | RGQ188 | Matrix | : WATER |
| Ext Btch ID: | VO05G17 | % Moisture | : NA |
| Calib. Ref.: | RGQ022 | Instrument ID | : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | 1.2 | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | .42J | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | 1.2 | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | 21 | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | 16 | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | .31J | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 107 | 70-140 |
| 4-BROMOFLUOROBENZENE | 102 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 21:28 |
| Sample ID: | 02-00-W-4-11 | Date Analyzed: | 07/12/06 21:28 |
| Lab Samp ID: | G027-02 | Dilution Factor: | 1 |
| Lab File ID: | RGQ187 | Matrix : | WATER |
| Ext Btch ID: | VO05G17 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 102 | 70-140 |
| 4-BROMOFLUOROBENZENE | 102 | 70-130 |
| TOLUENE-D8 | 105 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 22:42 |
| Sample ID: | OC2-PMW23C-0-14 | Date Analyzed: | 07/12/06 22:42 |
| Lab Samp ID: | G027-03 | Dilution Factor: | 1 |
| Lab File ID: | RGQ189 | Matrix : | WATER |
| Ext Btch ID: | VO05G17 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | .47J | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | .52 | .5 | .2 |
| 1,1-DICHLOROETHANE | 2.1 | .5 | .2 |
| 1,1-DICHLOROETHENE | 190E | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | 9.3 | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | .24J | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | 110E | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | 16 | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | .65J | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | 260E | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | 1.5 | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | 420E | .5 | .2 |
| TRICHLOROFLUOROMETHANE | 180E | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | 500E | 1 | .2 |
| MTBE | 1.4 | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 105 | 70-140 |
| 4-BROMOFLUOROBENZENE | 104 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: 07/07/06 |
| Project : OMEGA CHEMICAL | Date Received: 07/07/06 |
| Batch No. : 06G027 | Date Extracted: 07/14/06 06:16 |
| Sample ID: OC2-PMW23C-0-14DL | Date Analyzed: 07/14/06 06:16 |
| Lab Samp ID: G027-03T | Dilution Factor: 50 |
| Lab File ID: RGQ239 | Matrix : WATER |
| Ext Btch ID: VO05G22 | % Moisture : NA |
| Calib. Ref.: RGQ022 | Instrument ID : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 50 | 10 |
| 1,1,1-TRICHLOROETHANE | ND | 25 | 10 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 25 | 10 |
| 1,1,2-TRICHLOROETHANE | ND | 25 | 10 |
| 1,1-DICHLOROETHANE | ND | 25 | 10 |
| 1,1-DICHLOROETHENE | 420 | 25 | 10 |
| 1,1-DICHLOROPROPENE | ND | 25 | 10 |
| 1,2,3-TRICHLOROBENZENE | ND | 50 | 10 |
| 1,2,4-TRICHLOROBENZENE | ND | 50 | 10 |
| 1,2,4-TRIMETHYLBENZENE | ND | 25 | 10 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 50 | 25 |
| 1,2-DICHLOROBENZENE | ND | 25 | 10 |
| 1,2-DICHLOROETHANE | ND | 25 | 10 |
| 1,2-DICHLOROPROPANE | ND | 25 | 10 |
| 1,2-DIBROMOETHANE | ND | 25 | 10 |
| 1,3,5-TRIMETHYLBENZENE | ND | 50 | 10 |
| 1,3-DICHLOROBENZENE | ND | 25 | 10 |
| 1,3-DICHLOROPROPANE | ND | 25 | 10 |
| 1,4-DICHLOROBENZENE | ND | 25 | 10 |
| 2,2-DICHLOROPROPANE | ND | 50 | 10 |
| 2-CHLOROTOLUENE | ND | 50 | 10 |
| 4-CHLOROTOLUENE | ND | 50 | 10 |
| BENZENE | ND | 25 | 10 |
| BROMODICHLOROMETHANE | ND | 25 | 10 |
| BROMOFORM | ND | 25 | 15 |
| BROMOMETHANE | ND | 25 | 10 |
| CARBON DISULFIDE | ND | 50 | 10 |
| CARBON TETRACHLORIDE | ND | 25 | 10 |
| CHLOROBENZENE | ND | 50 | 10 |
| CHLOROETHANE | ND | 25 | 10 |
| CHLOROFORM | 120 | 50 | 10 |
| CHLOROMETHANE | ND | 50 | 10 |
| CIS-1,2-DICHLOROETHENE | 17J | 25 | 10 |
| CIS-1,3-DICHLOROPROPENE | ND | 25 | 10 |
| CYCLOHEXANE | ND | 50 | 10 |
| DIBROMOCHLOROMETHANE | ND | 50 | 10 |
| DIBROMOMETHANE | ND | 50 | 10 |
| DICHLORODIFLUOROMETHANE | ND | 50 | 15 |
| ETHYLBENZENE | ND | 25 | 10 |
| HEXACHLOROBUTADIENE | ND | 50 | 10 |
| ISOPROPYL BENZENE | ND | 25 | 10 |
| M/P-XYLENES | ND | 50 | 25 |
| METHYL ACETATE | ND | 50 | 25 |
| METHYLCYCLOHEXANE | ND | 50 | 10 |
| METHYLENE CHLORIDE | ND | 50 | 25 |
| N-BUTYLBENZENE | ND | 50 | 10 |
| N-PROPYLBENZENE | ND | 50 | 10 |
| NAPHTHALENE | ND | 100 | 25 |
| O-XYLENE | ND | 50 | 10 |
| SEC-BUTYLBENZENE | ND | 50 | 10 |
| STYRENE | ND | 25 | 10 |
| TERT-BUTYLBENZENE | ND | 50 | 10 |
| TETRACHLOROETHENE | 580 | 25 | 10 |
| TOLUENE | ND | 25 | 10 |
| TRANS-1,2-DICHLOROETHENE | ND | 25 | 10 |
| TRANS-1,3-DICHLOROPROPENE | ND | 25 | 10 |
| TRICHLOROETHENE | 420 | 25 | 10 |
| TRICHLOROFLUOROMETHANE | 190 | 50 | 10 |
| VINYL ACETATE | ND | 100 | 25 |
| VINYL CHLORIDE | ND | 25 | 10 |
| FC 113 | 510 | 50 | 10 |
| MTBE | ND | 50 | 10 |
| XYLENES, TOTAL | ND | 100 | 35 |
| ACETONE | ND | 500 | 250 |
| 2-BUTANONE | ND | 250 | 50 |
| 2-HEXANONE | ND | 500 | 250 |
| 4-METHYL-2-PENTANONE | ND | 500 | 250 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 108 | 70-140 |
| 4-BROMOFLUOROBENZENE | 106 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 04:51 |
| Sample ID: | TB-06-06-06 | Date Analyzed: | 07/13/06 04:51 |
| Lab Samp ID: | G027-04 | Dilution Factor: | 1 |
| Lab File ID: | RGQ199 | Matrix : | WATER |
| Ext Btch ID: | VO05G19 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 104 | 70-140 |
| 4-BROMOFLUOROBENZENE | 102 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 06:42 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/13/06 06:42 |
| Lab Samp ID: | G027-05 | Dilution Factor: | 1 |
| Lab File ID: | RGQ202 | Matrix : | WATER |
| Ext Btch ID: | VO05G19 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | .47J | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | .48J | .5 | .2 |
| 1,1-DICHLOROETHANE | 2.1 | .5 | .2 |
| 1,1-DICHLOROETHENE | 160E | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | 9.3 | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | .24J | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | 110E | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | 16 | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | .69J | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | 330E | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | 1.4 | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | 410E | .5 | .2 |
| TRICHLOROFLUOROMETHANE | 180E | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | 500E | 1 | .2 |
| MTBE | 1.2 | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 106 | 70-140 |
| 4-BROMOFLUOROBENZENE | 106 | 70-130 |
| TOLUENE-D8 | 107 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/14/06 06:53 |
| Sample ID: | OC2-PMW23C-1-15DL | Date Analyzed: | 07/14/06 06:53 |
| Lab Samp ID: | G027-05T | Dilution Factor: | 50 |
| Lab File ID: | RGQ240 | Matrix : | WATER |
| Ext Btch ID: | VO05G22 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 50 | 10 |
| 1,1,1-TRICHLOROETHANE | ND | 25 | 10 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 25 | 10 |
| 1,1,2-TRICHLOROETHANE | ND | 25 | 10 |
| 1,1-DICHLOROETHANE | ND | 25 | 10 |
| 1,1-DICHLOROETHENE | 420 | 25 | 10 |
| 1,1-DICHLOROPROPENE | ND | 25 | 10 |
| 1,2,3-TRICHLOROBENZENE | ND | 50 | 10 |
| 1,2,4-TRICHLOROBENZENE | ND | 50 | 10 |
| 1,2,4-TRIMETHYLBENZENE | ND | 25 | 10 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 50 | 25 |
| 1,2-DICHLOROBENZENE | ND | 25 | 10 |
| 1,2-DICHLOROETHANE | ND | 25 | 10 |
| 1,2-DICHLOROPROPANE | ND | 25 | 10 |
| 1,2-DIBROMOETHANE | ND | 25 | 10 |
| 1,3,5-TRIMETHYLBENZENE | ND | 50 | 10 |
| 1,3-DICHLOROBENZENE | ND | 25 | 10 |
| 1,3-DICHLOROPROPANE | ND | 25 | 10 |
| 1,4-DICHLOROBENZENE | ND | 25 | 10 |
| 2,2-DICHLOROPROPANE | ND | 50 | 10 |
| 2-CHLOROTOLUENE | ND | 50 | 10 |
| 4-CHLOROTOLUENE | ND | 50 | 10 |
| BENZENE | ND | 25 | 10 |
| BROMODICHLOROMETHANE | ND | 25 | 10 |
| BROMOFORM | ND | 25 | 15 |
| BROMOMETHANE | ND | 25 | 10 |
| CARBON DISULFIDE | ND | 50 | 10 |
| CARBON TETRACHLORIDE | ND | 25 | 10 |
| CHLOROBENZENE | ND | 50 | 10 |
| CHLOROETHANE | ND | 25 | 10 |
| CHLOROFORM | 120 | 50 | 10 |
| CHLOROMETHANE | ND | 50 | 10 |
| CIS-1,2-DICHLOROETHENE | 17J | 25 | 10 |
| CIS-1,3-DICHLOROPROPENE | ND | 25 | 10 |
| CYCLOHEXANE | ND | 50 | 10 |
| DIBROMOCHLOROMETHANE | ND | 50 | 10 |
| DIBROMOMETHANE | ND | 50 | 10 |
| DICHLORODIFLUOROMETHANE | ND | 50 | 15 |
| ETHYLBENZENE | ND | 25 | 10 |
| HEXACHLOROBUTADIENE | ND | 50 | 10 |
| ISOPROPYL BENZENE | ND | 25 | 10 |
| M/P-XYLENES | ND | 50 | 25 |
| METHYL ACETATE | ND | 50 | 25 |
| METHYLCYCLOHEXANE | ND | 50 | 10 |
| METHYLENE CHLORIDE | ND | 50 | 25 |
| N-BUTYLBENZENE | ND | 50 | 10 |
| N-PROPYLBENZENE | ND | 50 | 10 |
| NAPHTHALENE | ND | 100 | 25 |
| O-XYLENE | ND | 50 | 10 |
| SEC-BUTYLBENZENE | ND | 50 | 10 |
| STYRENE | ND | 25 | 10 |
| TERT-BUTYLBENZENE | ND | 50 | 10 |
| TETRACHLOROETHENE | 580 | 25 | 10 |
| TOLUENE | ND | 25 | 10 |
| TRANS-1,2-DICHLOROETHENE | ND | 25 | 10 |
| TRANS-1,3-DICHLOROPROPENE | ND | 25 | 10 |
| TRICHLOROETHENE | 410 | 25 | 10 |
| TRICHLOROFLUOROMETHANE | 190 | 50 | 10 |
| VINYL ACETATE | ND | 100 | 25 |
| VINYL CHLORIDE | ND | 25 | 10 |
| FC 113 | 520 | 50 | 10 |
| MTBE | ND | 50 | 10 |
| XYLENES, TOTAL | ND | 100 | 35 |
| ACETONE | ND | 500 | 250 |
| 2-BUTANONE | ND | 250 | 50 |
| 2-HEXANONE | ND | 500 | 250 |
| 4-METHYL-2-PENTANONE | ND | 500 | 250 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 108 | 70-140 |
| 4-BROMOFLUOROBENZENE | 104 | 70-130 |
| TOLUENE-D8 | 105 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 05:28 |
| Sample ID: | TB-01-06-06 | Date Analyzed: | 07/13/06 05:28 |
| Lab Samp ID: | G027-06 | Dilution Factor: | 1 |
| Lab File ID: | RGQ200 | Matrix | : WATER |
| Ext Btch ID: | VO05G19 | % Moisture | : NA |
| Calib. Ref.: | RGQ022 | Instrument ID | : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 106 | 70-140 |
| 4-BROMOFLUOROBENZENE | 103 | 70-130 |
| TOLUENE-D8 | 105 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/14/06 07:30 |
| Sample ID: | OC2-PMW23D-0-16 | Date Analyzed: | 07/14/06 07:30 |
| Lab Samp ID: | G027-07R | Dilution Factor: | 1 |
| Lab File ID: | RGQ241 | Matrix : | WATER |
| Ext Btch ID: | VO05G22 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | .27J | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 | 70-140 |
| 4-BROMOFLUOROBENZENE | 106 | 70-130 |
| TOLUENE-D8 | 105 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 07:56 |
| Sample ID: | OC2-PMW14-0-12 | Date Analyzed: | 07/13/06 07:56 |
| Lab Samp ID: | G027-08 | Dilution Factor: | 1 |
| Lab File ID: | RGQ204 | Matrix | : WATER |
| Ext Btch ID: | VO05G19 | % Moisture | : NA |
| Calib. Ref.: | RGQ022 | Instrument ID | : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | .48J | .5 | .2 |
| 1,1-DICHLOROETHENE | 170E | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | 1.6 | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | 16 | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | .77 | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | .5J | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | 230E | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | .29J | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | 36 | .5 | .2 |
| TRICHLOROFLUOROMETHANE | 110E | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | 270E | 1 | .2 |
| MTBE | .6J | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 108 | 70-140 |
| 4-BROMOFLUOROBENZENE | 104 | 70-130 |
| TOLUENE-D8 | 107 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/14/06 08:07 |
| Sample ID: | OC2-PMW14-0-12DL | Date Analyzed: | 07/14/06 08:07 |
| Lab Samp ID: | G027-08T | Dilution Factor: | 10 |
| Lab File ID: | RGQ242 | Matrix | : WATER |
| Ext Btch ID: | VO05G22 | % Moisture | : NA |
| Calib. Ref.: | RGQ022 | Instrument ID | : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 10 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | 180 | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 10 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 10 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 10 | 5 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-DIBROMOETHANE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 10 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 10 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 3 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 10 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 10 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | 18 | 10 | 2 |
| CHLOROMETHANE | ND | 10 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| CYCLOHEXANE | ND | 10 | 2 |
| DIBROMOCHLOROMETHANE | ND | 10 | 2 |
| DIBROMOMETHANE | ND | 10 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 10 | 3 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 10 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 10 | 5 |
| METHYL ACETATE | ND | 10 | 5 |
| METHYLCYCLOHEXANE | ND | 10 | 2 |
| METHYLENE CHLORIDE | ND | 10 | 5 |
| N-BUTYLBENZENE | ND | 10 | 2 |
| N-PROPYLBENZENE | ND | 10 | 2 |
| NAPHTHALENE | ND | 20 | 5 |
| O-XYLENE | ND | 10 | 2 |
| SEC-BUTYLBENZENE | ND | 10 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 10 | 2 |
| TETRACHLOROETHENE | 230 | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | 37 | 5 | 2 |
| TRICHLOROFLUOROMETHANE | 110 | 10 | 2 |
| VINYL ACETATE | ND | 20 | 5 |
| VINYL CHLORIDE | ND | 5 | 2 |
| FC 113 | 280 | 10 | 2 |
| MTBE | ND | 10 | 2 |
| XYLENES, TOTAL | ND | 20 | 7 |
| ACETONE | ND | 100 | 50 |
| 2-BUTANONE | ND | 50 | 10 |
| 2-HEXANONE | ND | 100 | 50 |
| 4-METHYL-2-PENTANONE | ND | 100 | 50 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 109 | 70-140 |
| 4-BROMOFLUOROBENZENE | 103 | 70-130 |
| TOLUENE-D8 | 105 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 08:33 |
| Sample ID: | OC2-00-W-2-9 | Date Analyzed: | 07/13/06 08:33 |
| Lab Samp ID: | G027-09 | Dilution Factor: | 1 |
| Lab File ID: | RGQ205 | Matrix : | WATER |
| Ext Btch ID: | VO05G19 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | .31J | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 105 | 70-140 |
| 4-BROMOFLUOROBENZENE | 104 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 06:05 |
| Sample ID: | OC2-00-W-4-10 | Date Analyzed: | 07/13/06 06:05 |
| Lab Samp ID: | G027-10 | Dilution Factor: | 1 |
| Lab File ID: | RGQ201 | Matrix : | WATER |
| Ext Btch ID: | VO05G19 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 103 | 70-140 |
| 4-BROMOFLUOROBENZENE | 104 | 70-130 |
| TOLUENE-D8 | 106 | 70-140 |

# QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/12/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 14:40 |
| Sample ID: | MBLK1W | Date Analyzed: | 07/12/06 14:40 |
| Lab Samp ID: | V005G17Q | Dilution Factor: | 1 |
| Lab File ID: | RGQ176 | Matrix : | WATER |
| Ext Btch ID: | V005G17 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 70-140 |
| 4-BROMOFLUOROBENZENE | 103 | 70-130 |
| TOLUENE-D8 | 105 | 70-130 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | VO05G17Q | VO05G17L | VO05G17C | | |
| LAB FILE ID: | RGQ176 | RGQ173 | RGQ174 | | |
| DATE EXTRACTED: | 07/12/0614:40 | 07/12/0612:49 | 07/12/0613:25 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/12/0614:40 | 07/12/0612:49 | 07/12/0613:25 | DATE RECEIVED: | 07/12/06 |
| PREP. BATCH: | VO05G17 | VO05G17 | VO05G17 | | |
| CALIB. REF: | RGQ022 | RGQ022 | RGQ022 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 10 | 10 | 100 | 10 | 9.77 | 98 | 3 | 70-130 | 30 |
| Benzene | ND | 10 | 10.4 | 104 | 10 | 10.1 | 101 | 3 | 70-130 | 30 |
| Chlorobenzene | ND | 10 | 10.5 | 105 | 10 | 10.3 | 103 | 3 | 70-130 | 30 |
| Toluene | ND | 10 | 10.8 | 108 | 10 | 10.6 | 106 | 2 | 70-130 | 30 |
| Trichloroethene | ND | 10 | 10.5 | 105 | 10 | 10.1 | 101 | 3 | 70-130 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 10 | 10.4 | 104 | 10 | 10.3 | 103 | 70-140 |
| 4-Bromofluorobenzene | 10 | 10.2 | 102 | 10 | 10.2 | 102 | 70-130 |
| Toluene-d8 | 10 | 10.7 | 107 | 10 | 10.7 | 107 | 70-130 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/13/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/13/06 04:14 |
| Sample ID: | MBLK2W | Date Analyzed: | 07/13/06 04:14 |
| Lab Samp ID: | V005G19Q | Dilution Factor: | 1 |
| Lab File ID: | RGQ198 | Matrix : | WATER |
| Ext Btch ID: | V005G19 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 101 | 70-140 |
| 4-BROMOFLUOROBENZENE | 106 | 70-130 |
| TOLUENE-D8 | 107 | 70-130 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK2W | | | | |
| LAB SAMP ID: | VO05G19Q | VO05G19L | VO05G19C | | |
| LAB FILE ID: | RGQ198 | RGQ195 | RGQ196 | | |
| DATE EXTRACTED: | 07/13/0604:14 | 07/13/0602:23 | 07/13/0603:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/13/0604:14 | 07/13/0602:23 | 07/13/0603:00 | DATE RECEIVED: | 07/13/06 |
| PREP. BATCH: | VO05G19 | VO05G19 | VO05G19 | | |
| CALIB. REF: | RGQ022 | RGQ022 | RGQ022 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 10 | 10.4 | 104 | 10 | 10.2 | 102 | 2 | 70-130 | 30 |
| Benzene | ND | 10 | 10.8 | 108 | 10 | 10.3 | 103 | 5 | 70-130 | 30 |
| Chlorobenzene | ND | 10 | 10.9 | 109 | 10 | 10.4 | 104 | 4 | 70-130 | 30 |
| Toluene | ND | 10 | 11.3 | 113 | 10 | 10.7 | 108 | 5 | 70-130 | 30 |
| Trichloroethene | ND | 10 | 10.6 | 106 | 10 | 10.3 | 103 | 3 | 70-130 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 10 | 10.3 | 103 | 10 | 10.4 | 104 | 70-140 |
| 4-Bromofluorobenzene | 10 | 10.4 | 104 | 10 | 10.4 | 104 | 70-130 |
| Toluene-d8 | 10 | 10.9 | 109 | 10 | 10.6 | 106 | 70-130 |

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/14/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/14/06 05:39 |
| Sample ID: | MBLK3W | Date Analyzed: | 07/14/06 05:39 |
| Lab Samp ID: | V005G22Q | Dilution Factor: | 1 |
| Lab File ID: | RGQ238 | Matrix : | WATER |
| Ext Btch ID: | V005G22 | % Moisture : | NA |
| Calib. Ref.: | RGQ022 | Instrument ID : | T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-DIBROMOETHANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | 1 | .2 |
| 2-CHLOROTOLUENE | ND | 1 | .2 |
| 4-CHLOROTOLUENE | ND | 1 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .3 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | 1 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | 1 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | 1 | .2 |
| CHLOROMETHANE | ND | 1 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| CYCLOHEXANE | ND | 1 | .2 |
| DIBROMOCHLOROMETHANE | ND | 1 | .2 |
| DIBROMOMETHANE | ND | 1 | .2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | .3 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | 1 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | 1 | .5 |
| METHYL ACETATE | ND | 1 | .5 |
| METHYLCYCLOHEXANE | ND | 1 | .2 |
| METHYLENE CHLORIDE | ND | 1 | .5 |
| N-BUTYLBENZENE | ND | 1 | .2 |
| N-PROPYLBENZENE | ND | 1 | .2 |
| NAPHTHALENE | ND | 2 | .5 |
| O-XYLENE | ND | 1 | .2 |
| SEC-BUTYLBENZENE | ND | 1 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | 1 | .2 |
| TETRACHLOROETHENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | .2 |
| VINYL ACETATE | ND | 2 | .5 |
| VINYL CHLORIDE | ND | .5 | .2 |
| FC 113 | ND | 1 | .2 |
| MTBE | ND | 1 | .2 |
| XYLENES, TOTAL | ND | 2 | .7 |
| ACETONE | ND | 10 | 5 |
| 2-BUTANONE | ND | 5 | 1 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 1,2-DICHLOROETHANE-D4 | 107 | 70-140 |
| 4-BROMOFLUOROBENZENE | 106 | 70-130 |
| TOLUENE-D8 | 106 | 70-130 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK3W | | | | |
| LAB SAMP ID: | VO05G22Q | VO05G22L | VO05G22C | | |
| LAB FILE ID: | RGQ238 | RGQ235 | RGQ236 | | |
| DATE EXTRACTED: | 07/14/0605:39 | 07/14/0603:47 | 07/14/0604:24 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/14/0605:39 | 07/14/0603:47 | 07/14/0604:24 | DATE RECEIVED: | 07/14/06 |
| PREP. BATCH: | VO05G22 | VO05G22 | VO05G22 | | |
| CALIB. REF: | RGQ022 | RGQ022 | RGQ022 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 10 | 9.62 | 96 | 10 | 9.34 | 93 | 3 | 70-130 | 30 |
| Benzene | ND | 10 | 10.2 | 102 | 10 | 10 | 100 | 2 | 70-130 | 30 |
| Chlorobenzene | ND | 10 | 10.2 | 102 | 10 | 10.1 | 101 | 2 | 70-130 | 30 |
| Toluene | ND | 10 | 10.4 | 104 | 10 | 10.4 | 104 | 1 | 70-130 | 30 |
| Trichloroethene | ND | 10 | 10.2 | 102 | 10 | 10.3 | 103 | 1 | 70-130 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 10 | 10.4 | 104 | 10 | 10.4 | 104 | 70-140 |
| 4-Bromofluorobenzene | 10 | 10.2 | 102 | 10 | 10.2 | 102 | 70-130 |
| Toluene-d8 | 10 | 10.8 | 108 | 10 | 10.7 | 107 | 70-130 |

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

METHOD 5030B/8260B
1, 2, 3-TRICHLOROPROPANE BY 8260/SIM

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 5030B/8260B
## 1, 2, 3-TRICHLOROPROPANE BY 8260/SIM

Five (5) water samples were received on 07/07/06 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
1,2,3-Trichloropropane by 8260/SIM

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-002

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | V002G06Q | 1 | NA | 07/17/0612:05 | 07/17/0612:05 | RGP053 | RAP020 | V002G06 | Method Blank |
| LCS1W | V002G06L | 1 | NA | 07/17/0610:44 | 07/17/0610:44 | RGP050 | RAP020 | V002G06 | Lab Control Sample (LCS) |
| LCD1W | V002G06C | 1 | NA | 07/17/0611:10 | 07/17/0611:10 | RGP051 | RAP020 | V002G06 | LCS Duplicate |
| OC2-PMW23B-0-13 | G027-01 | 1 | NA | 07/17/0612:33 | 07/17/0612:33 | RGP054 | RAP020 | V002G06 | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | 1 | NA | 07/17/0613:00 | 07/17/0613:00 | RGP055 | RAP020 | V002G06 | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | 1 | NA | 07/17/0613:28 | 07/17/0613:28 | RGP056 | RAP020 | V002G06 | Field Sample |
| OC2-PMW23D-0-16 | G027-07 | 1 | NA | 07/17/0613:55 | 07/17/0613:55 | RGP057 | RAP020 | V002G06 | Field Sample |
| OC2-PMW14-0-12 | G027-08 | 1 | NA | 07/17/0614:23 | 07/17/0614:23 | RGP058 | RAP020 | V002G06 | Field Sample |

FN - Filename
% Moist - Percent Moisture

# SAMPLE RESULTS

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 12:33 |
| Sample ID: | OC2-PMW23B-0-13 | Date Analyzed: | 07/17/06 12:33 |
| Lab Samp ID: | G027-01 | Dilution Factor: | 1 |
| Lab File ID: | RGP054 | Matrix : | WATER |
| Ext Btch ID: | VOO2G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 61 | 50-150 |

RL: Reporting Limit

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 13:00 |
| Sample ID: | OC2-PMW23C-0-14 | Date Analyzed: | 07/17/06 13:00 |
| Lab Samp ID: | G027-03 | Dilution Factor: | 1 |
| Lab File ID: | RGP055 | Matrix : | WATER |
| Ext Btch ID: | VO02G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 62 | 50-150 |

RL: Reporting Limit

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 13:28 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/17/06 13:28 |
| Lab Samp ID: | G027-05 | Dilution Factor: | 1 |
| Lab File ID: | RGP056 | Matrix : | WATER |
| Ext Btch ID: | VO02G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 67 | 50-150 |

RL: Reporting Limit

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 13:55 |
| Sample ID: | OC2-PMW23D-0-16 | Date Analyzed: | 07/17/06 13:55 |
| Lab Samp ID: | G027-07 | Dilution Factor: | 1 |
| Lab File ID: | RGP057 | Matrix : | WATER |
| Ext Btch ID: | VO02G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 61 | 50-150 |

RL: Reporting Limit

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 14:23 |
| Sample ID: | OC2-PMW14-0-12 | Date Analyzed: | 07/17/06 14:23 |
| Lab Samp ID: | G027-08 | Dilution Factor: | 1 |
| Lab File ID: | RGP058 | Matrix : | WATER |
| Ext Btch ID: | VO02G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 65 | 50-150 |

RL: Reporting Limit

# QC SUMMARIES

SW 5030B/8260B
1,2,3-Trichloropropane by 8260/SIM

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/17/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/17/06 12:05 |
| Sample ID: | MBLK1W | Date Analyzed: | 07/17/06 12:05 |
| Lab Samp ID: | V002G06Q | Dilution Factor: | 1 |
| Lab File ID: | RGP053 | Matrix : | WATER |
| Ext Btch ID: | V002G06 | % Moisture : | NA |
| Calib. Ref.: | RAP020 | Instrument ID : | T-002 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,2,3-TRICHLOROPROPANE | ND | .005 | .0025 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TOLUENE-D8 | 68 | 50-150 |

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: SW 5030B/8260B

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | V002G06Q | V002G06L | V002G06C | | |
| LAB FILE ID: | RGP053 | RGP050 | RGP051 | | |
| DATE EXTRACTED: | 07/17/0612:05 | 07/17/0610:44 | 07/17/0611:10 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/17/0612:05 | 07/17/0610:44 | 07/17/0611:10 | DATE RECEIVED: | 07/17/06 |
| PREP. BATCH: | V002G06 | V002G06 | V002G06 | | |
| CALIB. REF: | RAP020 | RAP020 | RAP020 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | ND | .05 | .046 | 92 | .05 | .044 | 88 | 4 | 50-150 | 20 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Toluene-d8 | .05 | .0314 | 63 | .05 | .0296 | 59 | 50-150 |

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 3520C/8270C
## SEMI VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 07/07/06 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-042

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | SVG012WB | 1 | NA | 07/17/0613:41 | 07/12/0616:30 | RGX073 | REX298 | SVG012W | Method Blank |
| LCS1W | SVG012WL | 1 | NA | 07/17/0614:07 | 07/12/0616:30 | RGX074 | REX298 | SVG012W | Lab Control Sample (LCS) |
| LCD1W | SVG012WC | 1 | NA | 07/17/0614:33 | 07/12/0616:30 | RGX075 | REX298 | SVG012W | LCS Duplicate |
| OC2-PMW23B-0-13 | G027-01 | .94 | NA | 07/17/0616:16 | 07/12/0616:30 | RGX079 | REX298 | SVG012W | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | .94 | NA | 07/17/0616:41 | 07/12/0616:30 | RGX080 | REX298 | SVG012W | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | .94 | NA | 07/17/0617:07 | 07/12/0616:30 | RGX081 | REX298 | SVG012W | Field Sample |
| OC2-PMW23D-0-16 | G027-07 | .94 | NA | 07/17/0617:32 | 07/12/0616:30 | RGX082 | REX298 | SVG012W | Field Sample |
| OC2-PMW14-0-12 | G027-08 | .94 | NA | 07/17/0617:58 | 07/12/0616:30 | RGX083 | REX298 | SVG012W | Field Sample |

FN - Filename
% Moist - Percent Moisture

# SAMPLE RESULTS

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW23B-0-13 | Date Analyzed: | 07/17/06 16:16 |
| Lab Samp ID: | G027-01 | Dilution Factor: | .94 |
| Lab File ID: | RGX079 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | REX298 | Instrument ID : | T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 4.7 |
| 2,4-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 4.7 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| ANILINE | ND | 19 | 4.7 |
| BENZOIC ACID | ND | 19 | 4.7 |
| BENZYL ALCOHOL | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| PYRIDINE | ND | 38 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| 1,1-BIPHENYL | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 65 | 30-150 |
| 2-FLUOROBIPHENYL | 58 | 30-130 |
| 2-FLUOROPHENOL | 44 | 20-130 |
| NITROBENZENE-D5 | 47 | 30-130 |
| PHENOL-D5 | 45 | 30-130 |
| TERPHENYL-D14 | 63 | 30-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW23C-0-14 | Date Analyzed: | 07/17/06 16:41 |
| Lab Samp ID: | G027-03 | Dilution Factor: | .94 |
| Lab File ID: | RGX080 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | REX298 | Instrument ID : | T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 4.7 |
| 2,4-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 4.7 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| ANILINE | ND | 19 | 4.7 |
| BENZOIC ACID | ND | 19 | 4.7 |
| BENZYL ALCOHOL | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| PYRIDINE | ND | 38 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| 1,1-BIPHENYL | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 69 | 30-150 |
| 2-FLUOROBIPHENYL | 68 | 30-130 |
| 2-FLUOROPHENOL | 52 | 20-130 |
| NITROBENZENE-D5 | 59 | 30-130 |
| PHENOL-D5 | 54 | 30-130 |
| TERPHENYL-D14 | 54 | 30-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/17/06 17:07 |
| Lab Samp ID: | G027-05 | Dilution Factor: | .94 |
| Lab File ID: | RGX081 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | REX298 | Instrument ID : | T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 4.7 |
| 2,4-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 4.7 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| ANILINE | ND | 19 | 4.7 |
| BENZOIC ACID | ND | 19 | 4.7 |
| BENZYL ALCOHOL | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| PYRIDINE | ND | 38 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| 1,1-BIPHENYL | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 61 | 30-150 |
| 2-FLUOROBIPHENYL | 54 | 30-130 |
| 2-FLUOROPHENOL | 43 | 20-130 |
| NITROBENZENE-D5 | 47 | 30-130 |
| PHENOL-D5 | 45 | 30-130 |
| TERPHENYL-D14 | 55 | 30-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW23D-0-16 | Date Analyzed: | 07/17/06 17:32 |
| Lab Samp ID: | G027-07 | Dilution Factor: | .94 |
| Lab File ID: | RGX082 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | REX298 | Instrument ID : | T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 4.7 |
| 2,4-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 4.7 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| ANILINE | ND | 19 | 4.7 |
| BENZOIC ACID | ND | 19 | 4.7 |
| BENZYL ALCOHOL | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| PYRIDINE | ND | 38 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| 1,1-BIPHENYL | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 64 | 30-150 |
| 2-FLUOROBIPHENYL | 62 | 30-130 |
| 2-FLUOROPHENOL | 50 | 20-130 |
| NITROBENZENE-D5 | 52 | 30-130 |
| PHENOL-D5 | 52 | 30-130 |
| TERPHENYL-D14 | 87 | 30-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW14-0-12 | Date Analyzed: | 07/17/06 17:58 |
| Lab Samp ID: | G027-08 | Dilution Factor: | .94 |
| Lab File ID: | RGX083 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | REX298 | Instrument ID : | T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 4.7 |
| 2,4-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 4.7 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| ANILINE | ND | 19 | 4.7 |
| BENZOIC ACID | ND | 19 | 4.7 |
| BENZYL ALCOHOL | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| PYRIDINE | ND | 38 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| 1,1-BIPHENYL | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 67 | 30-150 |
| 2-FLUOROBIPHENYL | 63 | 30-130 |
| 2-FLUOROPHENOL | 51 | 20-130 |
| NITROBENZENE-D5 | 53 | 30-130 |
| PHENOL-D5 | 52 | 30-130 |
| TERPHENYL-D14 | 84 | 30-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

# QC SUMMARY

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: NA |
| Project : OMEGA CHEMICAL | Date Received: 07/12/06 |
| Batch No. : 06G027 | Date Extracted: 07/12/06 16:30 |
| Sample ID: MBLK1W | Date Analyzed: 07/17/06 13:41 |
| Lab Samp ID: SVG012WB | Dilution Factor: 1 |
| Lab File ID: RGX073 | Matrix : WATER |
| Ext Btch ID: SVG012W | % Moisture : NA |
| Calib. Ref.: REX298 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 2,4,5-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4,6-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DIMETHYLPHENOL | ND | 10 | 5 |
| 2,4-DINITROPHENOL | ND | 20 | 5 |
| 2,4-DINITROTOLUENE | ND | 10 | 5 |
| 2,6-DINITROTOLUENE | ND | 10 | 5 |
| 2-CHLORONAPHTHALENE | ND | 10 | 5 |
| 2-CHLOROPHENOL | ND | 10 | 5 |
| 2-METHYLNAPHTHALENE | ND | 10 | 5 |
| 2-METHYLPHENOL | ND | 10 | 5 |
| 2-NITROANILINE | ND | 10 | 5 |
| 3,3'-DICHLOROBENZIDINE | ND | 10 | 5 |
| 3-NITROANILINE | ND | 10 | 5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 20 | 5 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 10 | 5 |
| 4-CHLORO-3-METHYLPHENOL | ND | 10 | 5 |
| 4-CHLOROANILINE | ND | 10 | 5 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 10 | 5 |
| 4-METHYLPHENOL (1) | ND | 10 | 5 |
| 4-NITROANILINE | ND | 10 | 5 |
| 4-NITROPHENOL | ND | 20 | 5 |
| ACENAPHTHENE | ND | 10 | 5 |
| ACENAPHTHYLENE | ND | 10 | 5 |
| ANTHRACENE | ND | 10 | 5 |
| BENZO(A)ANTHRACENE | ND | 10 | 5 |
| BENZO(B)FLUORANTHENE | ND | 10 | 5 |
| BENZO(K)FLUORANTHENE | ND | 10 | 5 |
| BENZO(G,H,I)PERYLENE | ND | 10 | 5 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 10 | 5 |
| BIS(2-CHLOROETHYL)ETHER | ND | 10 | 5 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 5 |
| BUTYLBENZYLPHTHALATE | ND | 10 | 5 |
| CHRYSENE | ND | 10 | 5 |
| DI-N-BUTYLPHTHALATE | ND | 10 | 5 |
| DIBENZO(A,H)ANTHRACENE | ND | 10 | 5 |
| DIBENZOFURAN | ND | 10 | 5 |
| DIETHYLPHTHALATE | ND | 10 | 5 |
| DIMETHYLPHTHALATE | ND | 10 | 5 |
| FLUORANTHENE | ND | 10 | 5 |
| FLUORENE | ND | 10 | 5 |
| HEXACHLOROCYCLOPENTADIENE | ND | 10 | 5 |
| HEXACHLOROETHANE | ND | 10 | 5 |
| INDENO(1,2,3-CD)PYRENE | ND | 10 | 5 |
| ISOPHORONE | ND | 10 | 5 |
| PHENANTHRENE | ND | 10 | 5 |
| PHENOL | ND | 10 | 5 |
| PYRENE | ND | 10 | 5 |
| ANILINE | ND | 20 | 5 |
| BENZOIC ACID | ND | 20 | 5 |
| BENZYL ALCOHOL | ND | 10 | 5 |
| CARBAZOLE | ND | 10 | 5 |
| PYRIDINE | ND | 40 | 5 |
| ACETOPHENONE | ND | 10 | 5 |
| BENZALDEHYDE | ND | 10 | 5 |
| 1,1-BIPHENYL | ND | 10 | 5 |
| CAPROLACTAM | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| 2,4,6-TRIBROMOPHENOL | 50 | 40-140 |
| 2-FLUOROBIPHENYL | 54 | 40-130 |
| 2-FLUOROPHENOL | 47 | 30-130 |
| NITROBENZENE-D5 | 46 | 40-130 |
| PHENOL-D5 | 49 | 30-130 |
| TERPHENYL-D14 | 87 | 50-130 |

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 3520C/8270C

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | SVG012WB | SVG012WL | SVG012WC | | |
| LAB FILE ID: | RGX073 | RGX074 | RGX075 | | |
| DATE EXTRACTED: | 07/12/0616:30 | 07/12/0616:30 | 07/12/0616:30 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/17/0613:41 | 07/17/0614:07 | 07/17/0614:33 | DATE RECEIVED: | 07/12/06 |
| PREP. BATCH: | SVG012W | SVG012W | SVG012W | | |
| CALIB. REF: | REX298 | REX298 | REX298 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | ND | 80 | 54.8 | 69 | 80 | 56.1 | 70 | 2 | 40-130 | 30 |
| 2-Chlorophenol | ND | 80 | 39.9 | 50 | 80 | 40.6 | 51 | 2 | 30-130 | 30 |
| 4-Chloro-3-Methylphenol | ND | 80 | 46.3 | 58 | 80 | 48.2 | 60 | 4 | 40-130 | 30 |
| 4-Nitrophenol | ND | 80 | 50.6 | 63 | 80 | 52.8 | 66 | 4 | 30-130 | 30 |
| Acenaphthene | ND | 80 | 45.5 | 57 | 80 | 48.5 | 61 | 7 | 40-130 | 30 |
| Phenol | ND | 80 | 38.8 | 49 | 80 | 39.6 | 50 | 2 | 20-130 | 30 |
| Pyrene | ND | 80 | 57.1 | 71 | 80 | 58.9 | 74 | 3 | 50-130 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| 2,4,6-Tribromophenol | 150 | 93.5 | 62 | 150 | 105 | 70 | 40-140 |
| 2-Fluorobiphenyl | 50 | 30.7 | 61 | 50 | 34.4 | 69 | 40-130 |
| 2-Fluorophenol | 150 | 71.6 | 48 | 150 | 78 | 52 | 30-130 |
| Nitrobenzene-d5 | 50 | 26.2 | 52 | 50 | 30.3 | 61 | 40-130 |
| Phenol-d5 | 150 | 75 | 50 | 150 | 81.9 | 55 | 30-130 |
| Terphenyl-d14 | 50 | 45.2 | 90 | 50 | 49.3 | 99 | 50-130 |

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 3520C/8270C SIM
## SEMI VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 07/07/06 for Semi Volatile Organic analysis by Method 3520C/8270C SIM in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit. RPDs of two analytes were above QC.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-048

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | SVG012WB | 1 | NA | 07/17/0614:34 | 07/12/0616:30 | RGZ071 | RFZ008 | SVG012W | Method Blank |
| LCS1W | SVG012WL | 8 | NA | 07/17/0614:54 | 07/12/0616:30 | RGZ072 | RFZ008 | SVG012W | Lab Control Sample (LCS) |
| LCD1W | SVG012WC | 8 | NA | 07/17/0615:13 | 07/12/0616:30 | RGZ073 | RFZ008 | SVG012W | LCS Duplicate |
| OC2-PMW23B-0-13 | G027-01 | .94 | NA | 07/17/0616:29 | 07/12/0616:30 | RGZ077 | RFZ008 | SVG012W | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | .94 | NA | 07/17/0616:49 | 07/12/0616:30 | RGZ078 | RFZ008 | SVG012W | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | .94 | NA | 07/17/0617:08 | 07/12/0616:30 | RGZ079 | RFZ008 | SVG012W | Field Sample |
| OC2-PMW23D-0-16 | G027-07 | .94 | NA | 07/17/0617:27 | 07/12/0616:30 | RGZ080 | RFZ008 | SVG012W | Field Sample |
| OC2-PMW14-0-12 | G027-08 | .94 | NA | 07/17/0617:47 | 07/12/0616:30 | RGZ081 | RFZ008 | SVG012W | Field Sample |

FN - Filename
% Moist - Percent Moisture

# SAMPLE RESULTS

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: 07/07/06 |
| Project : OMEGA CHEMICAL | Date Received: 07/07/06 |
| Batch No. : 06G027 | Date Extracted: 07/12/06 16:30 |
| Sample ID: OC2-PMW23B-0-13 | Date Analyzed: 07/17/06 16:29 |
| Lab Samp ID: G027-01 | Dilution Factor: .94 |
| Lab File ID: RGZ077 | Matrix : WATER |
| Ext Btch ID: SVG012W | % Moisture : NA |
| Calib. Ref.: RFZ008 | Instrument ID : T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .19 | .094 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 2 | 1.9 | .94 |
| HEXACHLOROBENZENE | ND | .94 | .47 |
| PENTACHLOROPHENOL | ND | .94 | .47 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 57 | 30-130 |
| PHENOL-D5 | 51 | 30-130 |

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: 07/07/06 |
| Project : OMEGA CHEMICAL | Date Received: 07/07/06 |
| Batch No. : 06G027 | Date Extracted: 07/12/06 16:30 |
| Sample ID: OC2-PMW23C-0-14 | Date Analyzed: 07/17/06 16:49 |
| Lab Samp ID: G027-03 | Dilution Factor: .94 |
| Lab File ID: RGZ078 | Matrix : WATER |
| Ext Btch ID: SVG012W | % Moisture : NA |
| Calib. Ref.: RFZ008 | Instrument ID : T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .19 | .094 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 1.6J | 1.9 | .94 |
| HEXACHLOROBENZENE | ND | .94 | .47 |
| PENTACHLOROPHENOL | ND | .94 | .47 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 48 | 30-130 |
| PHENOL-D5 | 65 | 30-130 |

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/17/06 17:08 |
| Lab Samp ID: | G027-05 | Dilution Factor: | .94 |
| Lab File ID: | RGZ079 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | RFZ008 | Instrument ID : | T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .19 | .094 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 1.9 | .94 |
| HEXACHLOROBENZENE | ND | .94 | .47 |
| PENTACHLOROPHENOL | ND | .94 | .47 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 53 | 30-130 |
| PHENOL-D5 | 51 | 30-130 |

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: 07/07/06 |
| Project : OMEGA CHEMICAL | Date Received: 07/07/06 |
| Batch No. : 06G027 | Date Extracted: 07/12/06 16:30 |
| Sample ID: OC2-PMW23D-0-16 | Date Analyzed: 07/17/06 17:27 |
| Lab Samp ID: G027-07 | Dilution Factor: .94 |
| Lab File ID: RGZ080 | Matrix : WATER |
| Ext Btch ID: SVG012W | % Moisture : NA |
| Calib. Ref.: RFZ008 | Instrument ID : T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .19 | .094 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 1.9 | .94 |
| HEXACHLOROBENZENE | ND | .94 | .47 |
| PENTACHLOROPHENOL | ND | .94 | .47 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 85 | 30-130 |
| PHENOL-D5 | 54 | 30-130 |

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | |
|---|---|
| Client : ARCADIS | Date Collected: 07/07/06 |
| Project : OMEGA CHEMICAL | Date Received: 07/07/06 |
| Batch No. : 06G027 | Date Extracted: 07/12/06 16:30 |
| Sample ID: OC2-PMW14-0-12 | Date Analyzed: 07/17/06 17:47 |
| Lab Samp ID: G027-08 | Dilution Factor: .94 |
| Lab File ID: RGZ081 | Matrix : WATER |
| Ext Btch ID: SVG012W | % Moisture : NA |
| Calib. Ref.: RFZ008 | Instrument ID : T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .19 | .094 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 1.4J | 1.9 | .94 |
| HEXACHLOROBENZENE | ND | .94 | .47 |
| PENTACHLOROPHENOL | ND | .94 | .47 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 84 | 30-130 |
| PHENOL-D5 | 58 | 30-130 |

# QC SUMMARY

METHOD 3520C/8270C SIM

SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/12/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 16:30 |
| Sample ID: | MBLK1W | Date Analyzed: | 07/17/06 14:34 |
| Lab Samp ID: | SVG012WB | Dilution Factor: | 1 |
| Lab File ID: | RGZ071 | Matrix : | WATER |
| Ext Btch ID: | SVG012W | % Moisture : | NA |
| Calib. Ref.: | RFZ008 | Instrument ID : | T-048 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| BENZO(A)PYRENE | ND | .2 | .1 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 1.1J | 2 | 1 |
| HEXACHLOROBENZENE | ND | 1 | .5 |
| PENTACHLOROPHENOL | ND | 1 | .5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| TERPHENYL-D14 | 77 | 30-130 |
| PHENOL-D5 | 54 | 30-130 |

EMAX QUALITY CONTROL DATA

LCS/LCD ANALYSIS

CLIENT: ARCADIS

PROJECT: OMEGA CHEMICAL

BATCH NO.: 06G027

METHOD: METHOD 3520C/8270C SIM

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 8 | 8 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | SVG012WB | SVG012WL | SVG012WC | | |
| LAB FILE ID: | RGZ071 | RGZ072 | RGZ073 | | |
| DATE EXTRACTED: | 07/12/0616:30 | 07/12/0616:30 | 07/12/0616:30 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/17/0614:34 | 07/17/0614:54 | 07/17/0615:13 | DATE RECEIVED: | 07/12/06 |
| PREP. BATCH: | SVG012W | SVG012W | SVG012W | | |
| CALIB. REF: | RFZ008 | RFZ008 | RFZ008 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(a)pyrene | ND | 80 | 45.1 | 56 | 80 | 61.3 | 77 | 30 | 50-130 | 30 |
| bis(2-Ethylhexyl)phthalate | 1.12J | 80 | 53.1 | 65 | 80 | 72.3 | 89 | 31* | 30-150 | 30 |
| Hexachlorobenzene | ND | 80 | 34.7 | 43 | 80 | 47.1 | 59 | 30 | 20-130 | 30 |
| Pentachlorophenol | ND | 80 | 32.7 | 41 | 80 | 46.4 | 58 | 34* | 10-140 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Terphenyl-d14 | 50 | 34.7 | 69 | 50 | 48.4 | 97 | 30-130 |
| Phenol-d5 | 150 | 73.1 | 49 | 150 | 110 | 74 | 30-130 |

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

METHOD 3520C/8270C SIM
1,4-DIOXANE BY GC/MS

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 3520C/8270C SIM
## 1,4-DIOXANE BY GC/MS

Five (5) water samples were received on 07/07/06 for 1,4-Dioxane analysis by Method 3520C/8270C SIM in accordance with USEPA SW846, 3rd ed.

### 1. Holding Time

Analytical holding time was met.

### 2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

### 3. Method Blank

Method blank was free of contamination at the reporting limit.

### 4. Surrogate Recovery

Recoveries were within QC limit.

### 5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

### 6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

### 7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-052

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | SVG013WB | 1 | NA | 07/13/0615:13 | 07/12/0617:00 | RGK026 | RFK067 | SVG013W | Method Blank |
| LCS1W | SVG013WL | 1 | NA | 07/13/0615:24 | 07/12/0617:00 | RGK027 | RFK067 | SVG013W | Lab Control Sample (LCS) |
| LCD1W | SVG013WC | 1 | NA | 07/13/0615:35 | 07/12/0617:00 | RGK028 | RFK067 | SVG013W | LCS Duplicate |
| OC2-PMW23B-0-13 | G027-01 | .94 | NA | 07/13/0616:20 | 07/12/0617:00 | RGK032 | RFK067 | SVG013W | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | .94 | NA | 07/13/0616:31 | 07/12/0617:00 | RGK033 | RFK067 | SVG013W | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | .94 | NA | 07/13/0616:42 | 07/12/0617:00 | RGK034 | RFK067 | SVG013W | Field Sample |
| OC2-PMW23D-0-16 | G027-07 | .94 | NA | 07/13/0616:53 | 07/12/0617:00 | RGK035 | RFK067 | SVG013W | Field Sample |
| OC2-PMW14-0-12 | G027-08 | .94 | NA | 07/13/0617:04 | 07/12/0617:00 | RGK036 | RFK067 | SVG013W | Field Sample |

FN - Filename
% Moist - Percent Moisture

# SAMPLE RESULTS

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | OC2-PMW23B-0-13 | Date Analyzed: | 07/13/06 16:20 |
| Lab Samp ID: | G027-01 | Dilution Factor: | .94 |
| Lab File ID: | RGK032 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | ND | 1.9 | .94 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 75 | 18-132 |

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | OC2-PMW23C-0-14 | Date Analyzed: | 07/13/06 16:31 |
| Lab Samp ID: | G027-03 | Dilution Factor: | .94 |
| Lab File ID: | RGK033 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | 31 | 1.9 | .94 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 80 | 18-132 |

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/13/06 16:42 |
| Lab Samp ID: | G027-05 | Dilution Factor: | .94 |
| Lab File ID: | RGK034 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | 36 | 1.9 | .94 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 92 | 18-132 |

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | OC2-PMW23D-0-16 | Date Analyzed: | 07/13/06 16:53 |
| Lab Samp ID: | G027-07 | Dilution Factor: | .94 |
| Lab File ID: | RGK035 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | ND | 1.9 | .94 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 88 | 18-132 |

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | OC2-PMW14-0-12 | Date Analyzed: | 07/13/06 17:04 |
| Lab Samp ID: | G027-08 | Dilution Factor: | .94 |
| Lab File ID: | RGK036 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | 6.6 | 1.9 | .94 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 64 | 18-132 |

# QC SUMMARY

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/12/06 |
| Batch No. | : 06G027 | Date Extracted: | 07/12/06 17:00 |
| Sample ID: | MBLK1W | Date Analyzed: | 07/13/06 15:13 |
| Lab Samp ID: | SVG013WB | Dilution Factor: | 1 |
| Lab File ID: | RGK026 | Matrix : | WATER |
| Ext Btch ID: | SVG013W | % Moisture : | NA |
| Calib. Ref.: | RFK067 | Instrument ID : | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| 1,4-DIOXANE | ND | 2 | 1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|---|---|---|
| BROMOBENZENE | 56 | 18-132 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 3520C/8270C SIM

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | SVG013WB | SVG013WL | SVG013WC | | |
| LAB FILE ID: | RGK026 | RGK027 | RGK028 | | |
| DATE EXTRACTED: | 07/12/0617:00 | 07/12/0617:00 | 07/12/0617:00 | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/13/0615:13 | 07/13/0615:24 | 07/13/0615:35 | DATE RECEIVED: | 07/12/06 |
| PREP. BATCH: | SVG013W | SVG013W | SVG013W | | |
| CALIB. REF: | RFK067 | RFK067 | RFK067 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | ND | 40 | 25.8 | 64 | 40 | 30.2 | 75 | 16 | 40-130 | 30 |

| SURROGATE PARAMETER | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|---|---|
| Bromobenzene | 40 | 23.5 | 59 | 40 | 27.1 | 68 | 18-132 |

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

DISSOLVED
METALS / MERCURY

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 6020A
## DISSOLVED METALS BY ICP-MS

Five (5) water samples were received on 07/07/06 for Dissolved Metals analysis by Method 6020A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

### 1. Holding Time

Analysis met holding time criteria.

### 2. Method Blank

Method blank was free of contamination at the reporting limit.

### 3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

### 4. Serial Dilution/Post-Analytical Spike

Sample G027-07 was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

### 5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

### 6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
DISSOLVED METALS BY ICP-MS

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : T-198

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | IMG005WB | 1 | NA | 07/20/0621:48 | 07/11/0614:00 | 98G20015 | 98G20013 | IMG005W | Method Blank |
| LCS1W | IMG005WL | 1 | NA | 07/20/0621:57 | 07/11/0614:00 | 98G20016 | 98G20013 | IMG005W | Lab Control Sample (LCS) |
| LCD1W | IMG005WC | 1 | NA | 07/20/0622:05 | 07/11/0614:00 | 98G20017 | 98G20013 | IMG005W | LCS Duplicate |
| OC2-PMW23D-0-16AS | G027-07A | 1 | NA | 07/20/0622:13 | 07/11/0614:00 | 98G20018 | 98G20013 | IMG005W | Analytical Spike Sample |
| OC2-PMW23D-0-16 | G027-07 | 1 | NA | 07/20/0622:21 | 07/11/0614:00 | 98G20019 | 98G20013 | IMG005W | Field Sample |
| OC2-PMW23D-0-16DL | G027-07J | 5 | NA | 07/20/0622:30 | 07/11/0614:00 | 98G20020 | 98G20013 | IMG005W | Diluted Sample |
| OC2-PMW23B-0-13 | G027-01 | 1 | NA | 07/20/0623:27 | 07/11/0614:00 | 98G20027 | 98G20025 | IMG005W | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | 1 | NA | 07/20/0623:35 | 07/11/0614:00 | 98G20028 | 98G20025 | IMG005W | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | 1 | NA | 07/20/0623:44 | 07/11/0614:00 | 98G20029 | 98G20025 | IMG005W | Field Sample |
| OC2-PMW14-0-12 | G027-08 | 1 | NA | 07/20/0623:52 | 07/11/0614:00 | 98G20030 | 98G20025 | IMG005W | Field Sample |

FN - Filename
% Moist - Percent Moisture

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | OC2-PMW23B-0-13 | Date Analyzed: | 07/20/06 23:27 |
| Lab Samp ID: | G027-01 | Dilution Factor: | 1 |
| Lab File ID: | 98G20027 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20025 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | ND | .5 | .25 |
| Arsenic | 2.13 | .5 | .25 |
| Barium | 31.1 | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | 316 | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | 170000 | 1000 | 200 |
| Chromium | 13.2 | .5 | .25 |
| Cobalt | .335J | .5 | .25 |
| Copper | 1.2 | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | 45800 | 1000 | 200 |
| Manganese | 80.1 | 1 | .5 |
| Molybdenum | 7.21 | 2 | 1 |
| Nickel | 1.01 | .5 | .25 |
| Potassium | 4930 | 1000 | 200 |
| Selenium | 6.39 | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | 126000 | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | 3.12 | 1 | .5 |
| Zinc | 5.61J | 10 | 5 |

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | OC2-PMW23C-0-14 | Date Analyzed: | 07/20/06 23:35 |
| Lab Samp ID: | G027-03 | Dilution Factor: | 1 |
| Lab File ID: | 98G20028 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20025 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | .303J | .5 | .25 |
| Arsenic | 2.97 | .5 | .25 |
| Barium | 33.4 | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | 344 | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | 125000 | 1000 | 200 |
| Chromium | 2.07 | .5 | .25 |
| Cobalt | .306J | .5 | .25 |
| Copper | 3.58 | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | 37700 | 1000 | 200 |
| Manganese | 67.3 | 1 | .5 |
| Molybdenum | 9.38 | 2 | 1 |
| Nickel | 3.29 | .5 | .25 |
| Potassium | 5600 | 1000 | 200 |
| Selenium | 5.36 | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | 165000 | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | 3.57 | 1 | .5 |
| Zinc | 11.3 | 10 | 5 |

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | OC2-PMW23C-1-15 | Date Analyzed: | 07/20/06 23:44 |
| Lab Samp ID: | G027-05 | Dilution Factor: | 1 |
| Lab File ID: | 98G20029 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20025 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | .274J | .5 | .25 |
| Arsenic | 2.79 | .5 | .25 |
| Barium | 29.9 | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | 325 | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | 122000 | 1000 | 200 |
| Chromium | 1.77 | .5 | .25 |
| Cobalt | .269J | .5 | .25 |
| Copper | .767 | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | 36500 | 1000 | 200 |
| Manganese | 61.3 | 1 | .5 |
| Molybdenum | 9 | 2 | 1 |
| Nickel | 1.22 | .5 | .25 |
| Potassium | 5340 | 1000 | 200 |
| Selenium | 5.14 | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | 159000 | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | 3.14 | 1 | .5 |
| Zinc | 5.85J | 10 | 5 |

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | OC2-PMW23D-0-16 | Date Analyzed: | 07/20/06 22:21 |
| Lab Samp ID: | G027-07 | Dilution Factor: | 1 |
| Lab File ID: | 98G20019 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20013 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | ND | .5 | .25 |
| Arsenic | 1.1 | .5 | .25 |
| Barium | 37.1 | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | 200 | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | 217000 | 1000 | 200 |
| Chromium | 5.07 | .5 | .25 |
| Cobalt | .449J | .5 | .25 |
| Copper | .523 | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | 65800 | 1000 | 200 |
| Manganese | .753J | 1 | .5 |
| Molybdenum | 3.09 | 2 | 1 |
| Nickel | .49J | .5 | .25 |
| Potassium | 4800 | 1000 | 200 |
| Selenium | 74.5 | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | 98800 | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | 3.69 | 1 | .5 |
| Zinc | 5.89J | 10 | 5 |

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | 07/07/06 |
| Project | : OMEGA CHEMICAL | Date Received: | 07/07/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | OC2-PMW14-0-12 | Date Analyzed: | 07/20/06 23:52 |
| Lab Samp ID: | G027-08 | Dilution Factor: | 1 |
| Lab File ID: | 98G20030 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20025 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | ND | .5 | .25 |
| Arsenic | 1.28 | .5 | .25 |
| Barium | 47.2 | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | 395 | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | 169000 | 1000 | 200 |
| Chromium | 3.22 | .5 | .25 |
| Cobalt | .528 | .5 | .25 |
| Copper | .974 | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | 52400 | 1000 | 200 |
| Manganese | 97.6 | 1 | .5 |
| Molybdenum | 12 | 2 | 1 |
| Nickel | 1.05 | .5 | .25 |
| Potassium | 3050 | 1000 | 200 |
| Selenium | 5.02 | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | 106000 | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | 5.29 | 1 | .5 |
| Zinc | 5.22J | 10 | 5 |

METHOD 6020A
DISSOLVED METALS BY ICP-MS

| | | | |
|---|---|---|---|
| Client | : ARCADIS | Date Collected: | NA |
| Project | : OMEGA CHEMICAL | Date Received: | 07/11/06 |
| SDG NO. | : 06G027 | Date Extracted: | 07/11/06 14:00 |
| Sample ID: | MBLK1W | Date Analyzed: | 07/20/06 21:48 |
| Lab Samp ID: | IMG005WB | Dilution Factor: | 1 |
| Lab File ID: | 98G20015 | Matrix : | WATER |
| Ext Btch ID: | IMG005W | % Moisture : | NA |
| Calib. Ref.: | 98G20013 | Instrument ID : | EMAXTI98 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---|---|---|---|
| Aluminum | ND | 1000 | 200 |
| Antimony | ND | .5 | .25 |
| Arsenic | ND | .5 | .25 |
| Barium | ND | .5 | .25 |
| Beryllium | ND | .5 | .25 |
| Boron | ND | 10 | 5 |
| Cadmium | ND | 1 | .5 |
| Calcium | ND | 1000 | 200 |
| Chromium | ND | .5 | .25 |
| Cobalt | ND | .5 | .25 |
| Copper | ND | .5 | .25 |
| Iron | ND | 1000 | 200 |
| Lead | ND | 1 | .5 |
| Magnesium | ND | 1000 | 200 |
| Manganese | ND | 1 | .5 |
| Molybdenum | ND | 2 | 1 |
| Nickel | ND | .5 | .25 |
| Potassium | ND | 1000 | 200 |
| Selenium | ND | 1 | .5 |
| Silver | ND | 1 | .5 |
| Sodium | ND | 1000 | 200 |
| Thallium | ND | 1 | .5 |
| Vanadium | ND | 1 | .5 |
| Zinc | 7.71J | 10 | 5 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
SDG NO.: 06G027
METHOD: METHOD 6020A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| CONTROL NO.: | IMG005WB | IMG005WL | IMG005WC | | |
| LAB FILE ID: | 98G20015 | 98G20016 | 98G20017 | | |
| DATIME EXTRCTD: | 07/11/0614:00 | 07/11/0614:00 | 07/11/0614:00 | DATE COLLECTED: | NA |
| DATIME ANALYZD: | 07/20/0621:48 | 07/20/0621:57 | 07/20/0622:05 | DATE RECEIVED: | 07/11/06 |
| PREP. BATCH: | IMG005W | IMG005W | IMG005W | | |
| CALIB. REF: | 98G20013 | 98G20013 | 98G20013 | | |

ACCESSION:

| PARAMETER | BLNK RSLT ug/L | SPIKE AMT ug/L | BS RSLT ug/L | BS % REC | SPIKE AMT ug/L | BSD RSLT ug/L | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | 5000 | 5060 | 101 | 5000 | 5040 | 101 | 0 | 80-120 | 20 |
| Antimony | ND | 50 | 52.2 | 104 | 50 | 51.1 | 102 | 2 | 80-120 | 20 |
| Arsenic | ND | 50 | 50.9 | 102 | 50 | 50.4 | 101 | 1 | 80-120 | 20 |
| Barium | ND | 50 | 50.3 | 101 | 50 | 49.9 | 100 | 1 | 80-120 | 20 |
| Beryllium | ND | 50 | 51.3 | 103 | 50 | 50 | 100 | 3 | 80-120 | 20 |
| Boron | ND | 50 | 48.5 | 97 | 50 | 47.7 | 95 | 2 | 80-120 | 20 |
| Cadmium | ND | 50 | 50.2 | 100 | 50 | 48.9 | 98 | 3 | 80-120 | 20 |
| Calcium | ND | 5000 | 5300 | 106 | 5000 | 5230 | 105 | 1 | 80-120 | 20 |
| Chromium | ND | 50 | 52.5 | 105 | 50 | 51.4 | 103 | 2 | 80-120 | 20 |
| Cobalt | ND | 50 | 51.9 | 104 | 50 | 51.6 | 103 | 1 | 80-120 | 20 |
| Copper | ND | 50 | 52.6 | 105 | 50 | 50.9 | 102 | 3 | 80-120 | 20 |
| Iron | ND | 5000 | 5260 | 105 | 5000 | 5190 | 104 | 1 | 80-120 | 20 |
| Lead | ND | 50 | 53.1 | 106 | 50 | 52.3 | 105 | 2 | 80-120 | 20 |
| Magnesium | ND | 5000 | 5070 | 101 | 5000 | 5040 | 101 | 1 | 80-120 | 20 |
| Manganese | ND | 50 | 51.4 | 103 | 50 | 51 | 102 | 1 | 80-120 | 20 |
| Molybdenum | ND | 50 | 51.9 | 104 | 50 | 50.7 | 101 | 2 | 80-120 | 20 |
| Nickel | ND | 50 | 53 | 106 | 50 | 51.1 | 102 | 4 | 80-120 | 20 |
| Potassium | ND | 5000 | 5210 | 104 | 5000 | 5110 | 102 | 2 | 80-120 | 20 |
| Selenium | ND | 50 | 52.7 | 105 | 50 | 51.7 | 103 | 2 | 80-120 | 20 |
| Silver | ND | 50 | 48.4 | 97 | 50 | 46.1 | 92 | 5 | 80-120 | 20 |
| Sodium | ND | 5000 | 5320 | 106 | 5000 | 5220 | 104 | 2 | 80-120 | 20 |
| Thallium | ND | 50 | 51.6 | 103 | 50 | 51.4 | 103 | 0 | 80-120 | 20 |
| Vanadium | ND | 50 | 52.5 | 105 | 50 | 51 | 102 | 3 | 80-120 | 20 |
| Zinc | 7.71J | 50 | 53.9 | 92 | 50 | 53 | 91 | 2 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 6020A

==========

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 5
SAMPLE ID: OC2-PMW23D-0-16 OC2-PMW23D-0-1
EMAX SAMP ID: G027-07 G027-07J
LAB FILE ID: 98G20019 98G20020
DATE EXTRACTED: 07/11/0614:00 07/11/0614:00 DATE COLLECTED: 07/07/06
DATE ANALYZED: 07/20/0622:21 07/20/0622:30 DATE RECEIVED: 07/07/06
PREP. BATCH: IMG005W IMG005W
CALIB. REF: 98G20013 98G20013

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | SERIAL DIL RSLT (ug/L) | DIF RSLT % | QC LIMIT ( % ) |
|---|---|---|---|---|
| Aluminum | ND | ND | 0 | 10 |
| Antimony | ND | ND | 0 | 10 |
| Arsenic | 1.1 | ND | NA | 10 |
| Barium | 37.1 | 37.8 | 2 | 10 |
| Beryllium | ND | ND | 0 | 10 |
| Boron | 200 | 199 | 1 | 10 |
| Cadmium | ND | ND | 0 | 10 |
| Calcium | 217000 | 222000 | 3 | 10 |
| Chromium | 5.07 | 5.21 | 3 | 10 |
| Cobalt | .449J | ND | NA | 10 |
| Copper | .523 | ND | NA | 10 |
| Iron | ND | ND | 0 | 10 |
| Lead | ND | ND | 0 | 10 |
| Magnesium | 65800 | 70300 | 7 | 10 |
| Manganese | .753J | ND | NA | 10 |
| Molybdenum | 3.09 | ND | NA | 10 |
| Nickel | .49J | 1.27J | NA | 10 |
| Potassium | 4800 | 4980J | NA | 10 |
| Selenium | 74.5 | 73.8 | 1 | 10 |
| Silver | ND | ND | 0 | 10 |
| Sodium | 98800 | 102000 | 4 | 10 |
| Thallium | ND | ND | 0 | 10 |
| Vanadium | 3.69 | 4.19J | NA | 10 |
| Zinc | 5.89J | ND | NA | 10 |

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
SDG NO.: 06G027
METHOD: METHOD 6020A

==========

MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 1 1
SAMPLE ID: OC2-PMW23D-0-16
CONTROL NO.: G027-07 G027-07A
LAB FILE ID: 98G20019 98G20018
DATIME EXTRCTD: 07/11/0614:00 07/11/0614:00 DATE COLLECTED: 07/07/06
DATIME ANALYZD: 07/20/0622:21 07/20/0622:13 DATE RECEIVED: 07/07/06
PREP. BATCH: IMG005W IMG005W
CALIB. REF: 98G20013 98G20013

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | SPIKE AMT (ug/L) | AS RSLT (ug/L) | AS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Aluminum | ND | 5000 | 4900 | 98 | 75-125 |
| Antimony | ND | 50 | 51.9 | 104 | 75-125 |
| Arsenic | 1.1 | 50 | 52.6 | 103 | 75-125 |
| Barium | 37.1 | 50 | 87 | 100 | 75-125 |
| Beryllium | ND | 50 | 51.6 | 103 | 75-125 |
| Boron | 200 | 50 | 254 | 107 | 75-125 |
| Cadmium | ND | 50 | 49.6 | 99 | 75-125 |
| Calcium | 217000 | 5000 | 220000 | 58* | 75-125 |
| Chromium | 5.07 | 50 | 56.5 | 103 | 75-125 |
| Cobalt | .449J | 50 | 48.1 | 95 | 75-125 |
| Copper | .523 | 50 | 50 | 99 | 75-125 |
| Iron | ND | 5000 | 5010 | 100 | 75-125 |
| Lead | ND | 50 | 53.1 | 106 | 75-125 |
| Magnesium | 65800 | 5000 | 68400 | 53* | 75-125 |
| Manganese | .753J | 50 | 49 | 96 | 75-125 |
| Molybdenum | 3.09 | 50 | 55.9 | 106 | 75-125 |
| Nickel | .49J | 50 | 50.5 | 100 | 75-125 |
| Potassium | 4800 | 5000 | 9870 | 101 | 75-125 |
| Selenium | 74.5 | 50 | 125 | 100 | 75-125 |
| Silver | ND | 50 | 49 | 98 | 75-125 |
| Sodium | 98800 | 5000 | 103000 | 82 | 75-125 |
| Thallium | ND | 50 | 52 | 104 | 75-125 |
| Vanadium | 3.69 | 50 | 55.5 | 104 | 75-125 |
| Zinc | 5.89J | 50 | 51.9 | 92 | 75-125 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 7470A
## DISSOLVED MERCURY BY COLD VAPOR

Five (5) water samples were received on 07/07/06 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

### 1. Holding Time

Analysis met holding time criteria.

### 2. Method Blank

Method blank was free of contamination at the reporting limit.

### 3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

### 4. Serial Dilution / Post-Analytical Spike

Sample from another SDG G039-08 was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

### 5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

### 6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
DISSOLVED MERCURY BY COLD VAPOR

Client : ARCADIS
Project : OMEGA CHEMICAL

SDG NO. : 06G027
Instrument ID : TI047

WATER

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | HGG017WB | 1 | NA | 07/14/0611:00 | 07/13/0614:00 | M47G015010 | M47G015008 | HGG017W | Method Blank |
| LCS1W | HGG017WL | 1 | NA | 07/14/0611:02 | 07/13/0614:00 | M47G015011 | M47G015008 | HGG017W | Lab Control Sample (LCS) |
| LCD1W | HGG017WC | 1 | NA | 07/14/0611:04 | 07/13/0614:00 | M47G015012 | M47G015008 | HGG017W | LCS Duplicate |
| OC2-PMW18C-0-24AS | G039-08A | 1 | NA | 07/14/0611:06 | 07/13/0614:00 | M47G015013 | M47G015008 | HGG017W | Analytical Spike Sample |
| OC2-PMW18C-0-24 | G039-08 | 1 | NA | 07/14/0611:08 | 07/13/0614:00 | M47G015014 | M47G015008 | HGG017W | Field Sample |
| OC2-PMW18C-0-24DL | G039-08J | 5 | NA | 07/14/0611:10 | 07/13/0614:00 | M47G015015 | M47G015008 | HGG017W | Diluted Sample |
| OC2-PMW23B-0-13 | G027-01 | 1 | NA | 07/14/0611:32 | 07/13/0614:00 | M47G015025 | M47G015020 | HGG017W | Field Sample |
| OC2-PMW23C-0-14 | G027-03 | 1 | NA | 07/14/0611:34 | 07/13/0614:00 | M47G015026 | M47G015020 | HGG017W | Field Sample |
| OC2-PMW23C-1-15 | G027-05 | 1 | NA | 07/14/0611:36 | 07/13/0614:00 | M47G015027 | M47G015020 | HGG017W | Field Sample |
| OC2-PMW23D-0-16 | G027-07 | 1 | NA | 07/14/0611:38 | 07/13/0614:00 | M47G015028 | M47G015020 | HGG017W | Field Sample |
| OC2-PMW14-0-12 | G027-08 | 1 | NA | 07/14/0611:41 | 07/13/0614:00 | M47G015029 | M47G015020 | HGG017W | Field Sample |

FN - Filename
% Moist - Percent Moisture

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : TI047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | HGG017WB | ND | 1 | NA | .5 | .1 | 07/14/0611:00 | 07/13/0614:00 | M47G015010 | M47G015008 | HGG017W | NA | 07/13/06 |
| LCS1W | HGG017WL | 5.11 | 1 | NA | .5 | .1 | 07/14/0611:02 | 07/13/0614:00 | M47G015011 | M47G015008 | HGG017W | NA | 07/13/06 |
| LCD1W | HGG017WC | 5.12 | 1 | NA | .5 | .1 | 07/14/0611:04 | 07/13/0614:00 | M47G015012 | M47G015008 | HGG017W | NA | 07/13/06 |
| OC2-PMW23B-0-13 | G027-01 | ND | 1 | NA | .5 | .1 | 07/14/0611:32 | 07/13/0614:00 | M47G015025 | M47G015020 | HGG017W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | ND | 1 | NA | .5 | .1 | 07/14/0611:34 | 07/13/0614:00 | M47G015026 | M47G015020 | HGG017W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | ND | 1 | NA | .5 | .1 | 07/14/0611:36 | 07/13/0614:00 | M47G015027 | M47G015020 | HGG017W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | ND | 1 | NA | .5 | .1 | 07/14/0611:38 | 07/13/0614:00 | M47G015028 | M47G015020 | HGG017W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | ND | 1 | NA | .5 | .1 | 07/14/0611:41 | 07/13/0614:00 | M47G015029 | M47G015020 | HGG017W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
SDG NO.: 06G027
METHOD: METHOD 7470A

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| CONTROL NO.: | HGG017WB | HGG017WL | HGG017WC | | |
| LAB FILE ID: | M47G015010 | M47G015011 | M47G015012 | | |
| DATIME EXTRCTD: | 07/13/0614:00 | 07/13/0614:00 | 07/13/0614:00 | DATE COLLECTED: | NA |
| DATIME ANALYZD: | 07/14/0611:00 | 07/14/0611:02 | 07/14/0611:04 | DATE RECEIVED: | 07/13/06 |
| PREP. BATCH: | HGG017W | HGG017W | HGG017W | | |
| CALIB. REF: | M47G015008 | M47G015008 | M47G015008 | | |

ACCESSION:

| PARAMETER | BLNK RSLT ug/L | SPIKE AMT ug/L | BS RSLT ug/L | BS % REC | SPIKE AMT ug/L | BSD RSLT ug/L | BSD % REC | RPD % | QC LIMIT % | MAX RPD % |
|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Mercury | ND | 5 | 5.11 | 102 | 5 | 5.12 | 102 | 0 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 7470A

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 5 | | |
| SAMPLE ID: | OC2-PMW18C-0-24 | OC2-PMW18C-0-24DL | | |
| EMAX SAMP ID: | G039-08 | G039-08J | | |
| LAB FILE ID: | M47G015014 | M47G015015 | | |
| DATE EXTRACTED: | 07/13/0614:00 | 07/13/0614:00 | DATE COLLECTED: | 07/10/06 |
| DATE ANALYZED: | 07/14/0611:08 | 07/14/0611:10 | DATE RECEIVED: | 07/10/06 |
| PREP. BATCH: | HGG017W | HGG017W | | |
| CALIB. REF: | M47G015008 | M47G015008 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | SERIAL DIL RSLT (ug/L) | DIF RSLT % | QC LIMIT ( % ) |
|---|---|---|---|---|
| Dissolved Mercury | ND | ND | 0 | 10 |

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
SDG NO.: 06G027
METHOD: METHOD 7470A

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILTN FACTR: | 1 | 1 | | |
| SAMPLE ID: | OC2-PMW18C-0-24 | | | |
| CONTROL NO.: | G039-08 | G039-08A | | |
| LAB FILE ID: | M47G015014 | M47G015013 | | |
| DATIME EXTRCTD: | 07/13/0614:00 | 07/13/0614:00 | DATE COLLECTED: | 07/10/06 |
| DATIME ANALYZD: | 07/14/0611:08 | 07/14/0611:06 | DATE RECEIVED: | 07/10/06 |
| PREP. BATCH: | HGG017W | HGG017W | | |
| CALIB. REF: | M47G015008 | M47G015008 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | SPIKE AMT (ug/L) | AS RSLT (ug/L) | AS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Dissolved Mercury | ND | 2 | 2.08 | 104 | 85-115 |

7017

# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

WET CHEMICAL ANALYSES

SDG#: 06G027

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 160.1
## TOTAL DISSOLVED SOLIDS

Five (5) water samples were received on 07/07/06 for Total Dissolved Solids analysis by Method 160.1 in accordance with "Method for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

### 1. Holding Time

Analysis met holding time criteria.

### 2. Method Blank

Method blank was free of contamination at the reporting limit.

### 3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

### 4. Duplicate

Duplicate sample was not designated in this SDG.

### 5. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 160.1
TOTAL DISSOLVED SOLIDS

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I40706360

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | TDG004WB | ND | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-01 | NA | TDG004W | NA | 07/11/06 |
| LCS1W | TDG004WL | 265 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-02 | NA | TDG004W | NA | 07/11/06 |
| LCD1W | TDG004WC | 260 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-03 | NA | TDG004W | NA | 07/11/06 |
| OC2-PMW23B-0-13 | G027-01 | 1190 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-08 | NA | TDG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | 1060 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-09 | NA | TDG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | 1030 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-10 | NA | TDG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | 1130 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-11 | NA | TDG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | 1400 | 1 | NA | 20 | 5 | 07/12/0616:23 | 07/11/0615:49 | TDG004-12 | NA | TDG004W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 160.1
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: TDG004WL/C

DATE RECEIVED: 07/11/06
DATE EXTRACTED: 07/11/06 15:49
DATE ANALYZED: 07/12/06 16:23/16:23

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD % | QC LIMIT % | RPD LIMIT % |
|---|---|---|---|---|---|---|---|---|---|---|
| TDS | ND | 236 | 265 | 112 | 236 | 260 | 110 | 2 | 80-120 | 20 |

0003

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 218.6
## HEXAVALENT CHROMIUM

Five (5) water samples were received on 07/07/06 for Hexavalent Chromium analysis by Method 218.6 in accordance with "Method for Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluent by Ion Chromatography", EPA Rev. 3.0, November, 1991.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   All Recoveries were within QC limits.

4. **Duplicate**

   Sample G027-08 was analyzed for Duplicate. % RPD was within QC limit.

5. **Matrix Spike**

   Sample G027-08 was spiked. % Recovery was within QC limit.

6. **Sample Analysis**

   Sample results were analyzed according to the prescribed QC procedures. All QC criteria were met.

# SAMPLE RESULTS

METHOD 218.6
HEXAVALENT CHROMIUM

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I59

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | HCG003WB | ND | 1 | NA | .2 | .1 | 07/07/0618:50 | NA | IG07002 | IG07001 | HCG003W | NA | NA |
| LCS1W | HCG003WL | 1.08 | 1 | NA | .2 | .1 | 07/07/0619:01 | NA | IG07003 | IG07001 | HCG003W | NA | NA |
| LCD1W | HCG003WC | .939 | 1 | NA | .2 | .1 | 07/07/0619:11 | NA | IG07004 | IG07001 | HCG003W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | 15 | 1 | NA | .2 | .1 | 07/07/0619:21 | NA | IG07005 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | 1.93 | 1 | NA | .2 | .1 | 07/07/0619:32 | NA | IG07006 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | 1.91 | 1 | NA | .2 | .1 | 07/07/0619:42 | NA | IG07007 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | 4.95 | 1 | NA | .2 | .1 | 07/07/0619:53 | NA | IG07008 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | 3.27 | 1 | NA | .2 | .1 | 07/07/0620:03 | NA | IG07009 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12DUP | G027-08D | 3.21 | 1 | NA | .2 | .1 | 07/07/0620:13 | NA | IG07010 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12MS | G027-08M | 4.35 | 1 | NA | .2 | .1 | 07/07/0620:24 | NA | IG07011 | IG07001 | HCG003W | 07/07/06 | 07/07/06 |

# QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 218.6

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | HCG003WB | HCG003WL | HCG003WC | | |
| LAB FILE ID: | IG07002 | IG07003 | IG07004 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0618:50 | 07/07/0619:01 | 07/07/0619:11 | DATE RECEIVED: | NA |
| PREP. BATCH: | HCG003W | HCG003W | HCG003W | | |
| CALIB. REF: | IG07001 | IG07001 | IG07001 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Hexavalent Chromium | ND | 1 | 1.08 | 108 | 1 | .939 | 94 | 14 | 90-110 | 20 |

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 218.6

==========

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | OC2-PMW14-0-12 | | | |
| LAB SAMP ID: | G027-08 | G027-08M | | |
| LAB FILE ID: | IG07009 | IG07011 | | |
| DATE EXTRACTED: | NA | NA | DATE COLLECTED: | 07/07/06 |
| DATE ANALYZED: | 07/07/0620:03 | 07/07/0620:24 | DATE RECEIVED: | 07/07/06 |
| PREP. BATCH: | HCG003W | HCG003W | | |
| CALIB. REF: | IG07001 | IG07001 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | SPIKE AMT (ug/L) | MS RSLT (ug/L) | MS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Hexavalent Chromium | 3.27 | 1 | 4.35 | 109 | 80-120 |

9

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 218.6

| | | | | |
|---|---|---|---|---|
| MATRIX: | WATER | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | | |
| SAMPLE ID: | OC2-PMW14-0-12 | | | |
| EMAX SAMP ID: | G027-08 | G027-08D | | |
| LAB FILE ID: | IG07009 | IG07010 | | |
| DATE EXTRACTED: | NA | NA | DATE COLLECTED: | 07/07/06 |
| DATE ANALYZED: | 07/07/0620:03 | 07/07/0620:13 | DATE RECEIVED: | 07/07/06 |
| PREP. BATCH: | HCG003W | HCG003W | | |
| CALIB. REF: | IG07001 | IG07001 | | |

ACCESSION:

| PARAMETER | SMPL RSLT (ug/L) | DUPL RSLT (ug/L) | RPD RSLT % | QC LIMIT ( % ) |
|---|---|---|---|---|
| Hexavalent Chromium | 3.27 | 3.21 | 2 | 20 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 300.0
## ANIONS

Five (5) water samples were received on 07/07/06 for Bromide, Chloride, Fluoride, Nitrate-N, Nitrite-N, Orthophosphate-P and Sulfate analyses by method 300.0 in accordance with "Method for Determination of Inorganic Anions by Ion Chromatography", EPA 600/84-017.

### 1. Holding Time

Analyses met holding time criteria.

### 2. Method Blank

Method blanks were free of contamination at the reporting limit.

### 3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limits.

### 4. Duplicate

No duplicate sample was designated in this SDG.

### 5. Matrix Spike

No MS sample was designated in this SDG.

### 6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

# SAMPLE RESULTS

METHOD 300.0
BROMIDE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | ICG004WB | ND | 1 | NA | 1 | .1 | 07/07/0620:17 | NA | AG07-03 | AG07-01 | ICG004W | NA | NA |
| LCS1W | ICG004WL | 5.15 | 1 | NA | 1 | .1 | 07/07/0620:34 | NA | AG07-04 | AG07-01 | ICG004W | NA | NA |
| LCD1W | ICG004WC | 5.15 | 1 | NA | 1 | .1 | 07/07/0620:51 | NA | AG07-05 | AG07-01 | ICG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | 1.01 | 1 | NA | 1 | .1 | 07/07/0621:40 | NA | AG07-08 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | .406J | 1 | NA | 1 | .1 | 07/07/0621:57 | NA | AG07-09 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | .421J | 1 | NA | 1 | .1 | 07/07/0622:13 | NA | AG07-10 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | .684J | 1 | NA | 1 | .1 | 07/07/0622:30 | NA | AG07-11 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | .688J | 1 | NA | 1 | .1 | 07/07/0622:47 | NA | AG07-12 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |

METHOD 300.0
CHLORIDE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LCS1W | ICG014WL | 4.71 | 1 | NA | 1 | .1 | 07/14/0614:33 | NA | AG14-08 | AG14-01 | ICG014W | NA | NA |
| MBLK1W | ICG014WB | ND | 1 | NA | 1 | .1 | 07/14/0614:49 | NA | AG14-09 | AG14-01 | ICG014W | NA | NA |
| LCD1W | ICG014WC | 4.73 | 1 | NA | 1 | .1 | 07/14/0615:06 | NA | AG14-10 | AG14-01 | ICG014W | NA | NA |
| OC2-PMW23B-0-13DL | G027-01I | 97.8 | 50 | NA | 50 | 5 | 07/14/0620:45 | NA | AG14-30 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14DL | G027-03I | 89.5 | 20 | NA | 20 | 2 | 07/14/0621:01 | NA | AG14-31 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15DL | G027-05I | 90.2 | 20 | NA | 20 | 2 | 07/14/0621:18 | NA | AG14-32 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16DL | G027-07I | 83.7 | 50 | NA | 50 | 5 | 07/14/0621:34 | NA | AG14-33 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12DL | G027-08I | 64.8 | 25 | NA | 25 | 2.5 | 07/14/0621:51 | NA | AG14-34 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |

METHOD 300.0
FLUORIDE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | ICG004WB | ND | 1 | NA | .1 | .05 | 07/07/0620:17 | NA | AG07-03 | AG07-01 | ICG004W | NA | NA |
| LCS1W | ICG004WL | 1.91 | 1 | NA | .1 | .05 | 07/07/0620:34 | NA | AG07-04 | AG07-01 | ICG004W | NA | NA |
| LCD1W | ICG004WC | 1.87 | 1 | NA | .1 | .05 | 07/07/0620:51 | NA | AG07-05 | AG07-01 | ICG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | .395 | 1 | NA | .1 | .05 | 07/07/0621:40 | NA | AG07-08 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | .435 | 1 | NA | .1 | .05 | 07/07/0621:57 | NA | AG07-09 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | .448 | 1 | NA | .1 | .05 | 07/07/0622:13 | NA | AG07-10 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | .388 | 1 | NA | .1 | .05 | 07/07/0622:30 | NA | AG07-11 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | .313 | 1 | NA | .1 | .05 | 07/07/0622:47 | NA | AG07-12 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |

METHOD 300.0
NITRATE-N

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | ICG004WB | ND | 1 | NA | .1 | .05 | 07/07/0620:17 | NA | AG07-03 | AG07-01 | ICG004W | NA | NA |
| LCS1W | ICG004WL | 1.98 | 1 | NA | .1 | .05 | 07/07/0620:34 | NA | AG07-04 | AG07-01 | ICG004W | NA | NA |
| LCD1W | ICG004WC | 1.98 | 1 | NA | .1 | .05 | 07/07/0620:51 | NA | AG07-05 | AG07-01 | ICG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | 9.04 | 5 | NA | .5 | .25 | 07/07/0623:36 | NA | AG07-15 | AG07-13 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | 11 | 5 | NA | .5 | .25 | 07/07/0623:53 | NA | AG07-16 | AG07-13 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | 11 | 5 | NA | .5 | .25 | 07/08/0600:09 | NA | AG07-17 | AG07-13 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | 9.53 | 5 | NA | .5 | .25 | 07/08/0600:26 | NA | AG07-18 | AG07-13 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | 10.2 | 5 | NA | .5 | .25 | 07/08/0600:43 | NA | AG07-19 | AG07-13 | ICG004W | 07/07/06 | 07/07/06 |

METHOD 300.0
NITRITE-N

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | ICG004WB | ND | 1 | NA | .1 | .05 | 07/07/0620:17 | NA | AG07-03 | AG07-01 | ICG004W | NA | NA |
| LCS1W | ICG004WL | 2.02 | 1 | NA | .1 | .05 | 07/07/0620:34 | NA | AG07-04 | AG07-01 | ICG004W | NA | NA |
| LCD1W | ICG004WC | 2.03 | 1 | NA | .1 | .05 | 07/07/0620:51 | NA | AG07-05 | AG07-01 | ICG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | ND | 1 | NA | .1 | .05 | 07/07/0621:40 | NA | AG07-08 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | .161 | 1 | NA | .1 | .05 | 07/07/0621:57 | NA | AG07-09 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | .16 | 1 | NA | .1 | .05 | 07/07/0622:13 | NA | AG07-10 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | ND | 1 | NA | .1 | .05 | 07/07/0622:30 | NA | AG07-11 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | ND | 1 | NA | .1 | .05 | 07/07/0622:47 | NA | AG07-12 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |

METHOD 300.0
ORTHOPHOSPHATE-P

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | ICG004WB | ND | 1 | NA | 1 | .25 | 07/07/0620:17 | NA | AG07-03 | AG07-01 | ICG004W | NA | NA |
| LCS1W | ICG004WL | 5.01 | 1 | NA | 1 | .25 | 07/07/0620:34 | NA | AG07-04 | AG07-01 | ICG004W | NA | NA |
| LCD1W | ICG004WC | 5.06 | 1 | NA | 1 | .25 | 07/07/0620:51 | NA | AG07-05 | AG07-01 | ICG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | ND | 1 | NA | 1 | .25 | 07/07/0621:40 | NA | AG07-08 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | ND | 1 | NA | 1 | .25 | 07/07/0621:57 | NA | AG07-09 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | ND | 1 | NA | 1 | .25 | 07/07/0622:13 | NA | AG07-10 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | ND | 1 | NA | 1 | .25 | 07/07/0622:30 | NA | AG07-11 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | ND | 1 | NA | 1 | .25 | 07/07/0622:47 | NA | AG07-12 | AG07-01 | ICG004W | 07/07/06 | 07/07/06 |

METHOD 300.0
SULFATE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I100

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LCS1W | ICG014WL | 4.62 | 1 | NA | 1 | .25 | 07/14/0614:33 | NA | AG14-08 | AG14-01 | ICG014W | NA | NA |
| MBLK1W | ICG014WB | ND | 1 | NA | 1 | .25 | 07/14/0614:49 | NA | AG14-09 | AG14-01 | ICG014W | NA | NA |
| LCD1W | ICG014WC | 4.63 | 1 | NA | 1 | .25 | 07/14/0615:06 | NA | AG14-10 | AG14-01 | ICG014W | NA | NA |
| OC2-PMW23B-0-13DL | G027-01I | 349 | 50 | NA | 50 | 12.5 | 07/14/0620:45 | NA | AG14-30 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14DL | G027-03I | 252 | 20 | NA | 20 | 5 | 07/14/0621:01 | NA | AG14-31 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15DL | G027-05I | 254 | 20 | NA | 20 | 5 | 07/14/0621:18 | NA | AG14-32 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16DL | G027-07I | 594 | 50 | NA | 50 | 12.5 | 07/14/0621:34 | NA | AG14-33 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12DL | G027-08I | 287 | 25 | NA | 25 | 6.25 | 07/14/0621:51 | NA | AG14-34 | AG14-27 | ICG014W | 07/07/06 | 07/07/06 |

# QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG004WB | ICG004WL | ICG004WC | | |
| LAB FILE ID: | AG07-03 | AG07-04 | AG07-05 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0620:17 | 07/07/0620:34 | 07/07/0620:51 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG004W | ICG004W | ICG004W | | |
| CALIB. REF: | AG07-01 | AG07-01 | AG07-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromide | ND | 5 | 5.15 | 103 | 5 | 5.15 | 103 | 0 | 90-110 | 20 |

8021

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG014WB | ICG014WL | ICG014WC | | |
| LAB FILE ID: | AG14-09 | AG14-08 | AG14-10 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/14/0614:49 | 07/14/0614:33 | 07/14/0615:06 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG014W | ICG014W | ICG014W | | |
| CALIB. REF: | AG14-01 | AG14-01 | AG14-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride-Cl | ND | 5 | 4.71 | 94 | 5 | 4.73 | 95 | 0 | 90-110 | 20 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: EPA 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG004WB | ICG004WL | ICG004WC | | |
| LAB FILE ID: | AG07-03 | AG07-04 | AG07-05 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0620:17 | 07/07/0620:34 | 07/07/0620:51 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG004W | ICG004W | ICG004W | | |
| CALIB. REF: | AG07-01 | AG07-01 | AG07-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride-F | ND | 2 | 1.91 | 95 | 2 | 1.87 | 94 | 2 | 90-110 | 20 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG004WB | ICG004WL | ICG004WC | | |
| LAB FILE ID: | AG07-03 | AG07-04 | AG07-05 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0620:17 | 07/07/0620:34 | 07/07/0620:51 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG004W | ICG004W | ICG004W | | |
| CALIB. REF: | AG07-01 | AG07-01 | AG07-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate-N | ND | 2 | 1.98 | 99 | 2 | 1.98 | 99 | 0 | 90-110 | 20 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG004WB | ICG004WL | ICG004WC | | |
| LAB FILE ID: | AG07-03 | AG07-04 | AG07-05 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0620:17 | 07/07/0620:34 | 07/07/0620:51 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG004W | ICG004W | ICG004W | | |
| CALIB. REF: | AG07-01 | AG07-01 | AG07-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrite-N | ND | 2 | 2.02 | 101 | 2 | 2.03 | 101 | 0 | 90-110 | 20 |

6025

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG004WB | ICG004WL | ICG004WC | | |
| LAB FILE ID: | AG07-03 | AG07-04 | AG07-05 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/07/0620:17 | 07/07/0620:34 | 07/07/0620:51 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG004W | ICG004W | ICG004W | | |
| CALIB. REF: | AG07-01 | AG07-01 | AG07-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| ORTHOPHOSPHATE-P | ND | 5 | 5.01 | 100 | 5 | 5.06 | 101 | 1 | 90-110 | 20 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 300.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | ICG014WB | ICG014WL | ICG014WC | | |
| LAB FILE ID: | AG14-09 | AG14-08 | AG14-10 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/14/0614:49 | 07/14/0614:33 | 07/14/0615:06 | DATE RECEIVED: | NA |
| PREP. BATCH: | ICG014W | ICG014W | ICG014W | | |
| CALIB. REF: | AG14-01 | AG14-01 | AG14-01 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | ND | 5 | 4.62 | 92 | 5 | 4.63 | 93 | 0 | 90-110 | 20 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 314.0
## PERCHLORATE

Five (5) water samples were received on 07/07/06 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

### 1. Holding Time

Analysis met holding time criteria.

### 2. Method Blank

Method blank was free of contamination at half of the reporting limit.

### 3. Lab Control Sample

Lab control sample results were within QC limits.

### 4. Duplicate

No Duplicate sample was designated in this SDG.

### 5. Matrix Spike

No MS sample was designated in this SDG.

### 6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

# SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I57

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | PCG001WB | ND | 1 | NA | 5 | .5 | 07/18/0619:27 | NA | JG18002 | JG18001 | PCG001W | NA | NA |
| LCS1W | PCG001WL | 10.2 | 1 | NA | 5 | .5 | 07/18/0620:26 | NA | JG18004 | JG18001 | PCG001W | NA | NA |
| LCD1W | PCG001WC | 10.3 | 1 | NA | 5 | .5 | 07/18/0620:46 | NA | JG18005 | JG18001 | PCG001W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | 4.05J | 1 | NA | 5 | .5 | 07/18/0622:16 | NA | JG18009 | JG18001 | PCG001W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | 3.56J | 1 | NA | 5 | .5 | 07/18/0622:37 | NA | JG18010 | JG18001 | PCG001W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | 3.55J | 1 | NA | 5 | .5 | 07/18/0622:57 | NA | JG18011 | JG18001 | PCG001W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | 4.18J | 1 | NA | 5 | .5 | 07/18/0623:37 | NA | JG18013 | JG18012 | PCG001W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | 2.24J | 1 | NA | 5 | .5 | 07/18/0623:58 | NA | JG18014 | JG18012 | PCG001W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 314.0

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | PCG001WB | PCG001WL | PCG001WC | | |
| LAB FILE ID: | JG18002 | JG18004 | JG18005 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/18/0619:27 | 07/18/0620:26 | 07/18/0620:46 | DATE RECEIVED: | NA |
| PREP. BATCH: | PCG001W | PCG001W | PCG001W | | |
| CALIB. REF: | JG18001 | JG18001 | JG18001 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (ug/L) | SPIKE AMT (ug/L) | BS RSLT (ug/L) | BS % REC | SPIKE AMT (ug/L) | BSD RSLT (ug/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | 10 | 10.2 | 102 | 10 | 10.3 | 103 | 1 | 85-115 | 20 |

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# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 335.2
## TOTAL CYANIDE

Five (5) water samples were received on 07/07/06 for Total Cyanide analysis by Method 335.2 in accordance with "Method for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Duplicate**

   Sample G027-08 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   MS sample was not designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 335.2
TOTAL CYANIDE

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I70

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | CNG005WB | ND | 1 | NA | .01 | .005 | 07/18/0614:34 | NA | CNG005-12 | CNG005-08 | CNG005W | NA | NA |
| LCS1W | CNG005WL | .0939 | 1 | NA | .01 | .005 | 07/18/0614:34 | NA | CNG005-13 | CNG005-08 | CNG005W | NA | NA |
| LCD1W | CNG005WC | .0928 | 1 | NA | .01 | .005 | 07/18/0614:34 | NA | CNG005-14 | CNG005-08 | CNG005W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | ND | 1 | NA | .01 | .005 | 07/18/0614:36 | NA | CNG005-15 | CNG005-08 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | ND | 1 | NA | .01 | .005 | 07/18/0614:36 | NA | CNG005-16 | CNG005-08 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | ND | 1 | NA | .01 | .005 | 07/18/0614:36 | NA | CNG005-17 | CNG005-08 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | ND | 1 | NA | .01 | .005 | 07/18/0614:36 | NA | CNG005-18 | CNG005-08 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | ND | 1 | NA | .01 | .005 | 07/18/0614:36 | NA | CNG005-19 | CNG005-08 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12DUP | G027-08D | ND | 1 | NA | .01 | .005 | 07/18/0614:37 | NA | CNG005-22 | CNG005-20 | CNG005W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12MS | G027-08M | .0997 | 1 | NA | .01 | .005 | 07/18/0614:37 | NA | CNG005-23 | CNG005-20 | CNG005W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 335.2
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: CNG005WL/C

DATE RECEIVED: NA
DATE EXTRACTED: NA
DATE ANALYZED: 07/18/06 14:34/14:34

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD % | QC LIMIT % | RPD LIMIT % |
|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ND | .1 | .0939 | 94 | .1 | .0928 | 93 | 1 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 335.2
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: OC2-PMW14-0-12MS
CONTROL NO.: G027-08M

DATE RECEIVED: 07/07/06
DATE EXTRACTED: NA
DATE ANALYZED: 07/18/06 14:36

ACCESSION:

| PARAMETER | SMPL RSLT (mg/L) | SPIKE AMT (mg/L) | MS RSLT (mg/L) | MS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Cyanide | ND | .1 | .0997 | 100 | 75-125 |

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 335.2
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: OC2-PMW14-0-12DUP
CONTROL NO.: G027-08D

DATE RECEIVED: 07/07/06
DATE EXTRACTED: NA
DATE ANALYZED: 07/18/06 14:36

ACCESSION:

| PARAMETER | SAMPLE (mg/L) | DUP. SAMPLE (mg/L) | RPD ( % ) | RPD LIMIT ( % ) |
|---|---|---|---|---|
| Cyanide | ND | ND | 0 | 20 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 351.3
## TKN

Five (5) water samples were received on 07/07/06 for TKN analysis by Method 351.3 in accordance with "Method for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

### 1. Holding Time

Analysis met holding time criteria.

### 2. Method Blank

Method blank was free of contamination at the reporting limit.

### 3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

### 4. Duplicate

Duplicate sample was not designated in this SDG.

### 5. Matrix Spike

MS sample was not designated in this SDG.

### 6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 351.3
TKN

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I70

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | KNG002WB | ND | 1 | NA | 1 | .035 | 07/17/0611:17 | 07/12/0610:00 | KNG002-13 | KNG002-09 | KNG002W | NA | 07/12/06 |
| LCS1W | KNG002WL | 1.12 | 1 | NA | 1 | .035 | 07/17/0611:18 | 07/12/0610:00 | KNG002-14 | KNG002-09 | KNG002W | NA | 07/12/06 |
| LCD1W | KNG002WC | .968J | 1 | NA | 1 | .035 | 07/17/0611:19 | 07/12/0610:00 | KNG002-15 | KNG002-09 | KNG002W | NA | 07/12/06 |
| OC2-PMW23B-0-13 | G027-01 | .42J | 1 | NA | 1 | .035 | 07/17/0611:25 | 07/12/0610:00 | KNG002-30 | KNG002-21 | KNG002W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | .514J | 1 | NA | 1 | .035 | 07/17/0611:25 | 07/12/0610:00 | KNG002-31 | KNG002-21 | KNG002W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | .55J | 1 | NA | 1 | .035 | 07/17/0611:25 | 07/12/0610:00 | KNG002-32 | KNG002-21 | KNG002W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | .201J | 1 | NA | 1 | .035 | 07/17/0611:26 | 07/12/0610:00 | KNG002-35 | KNG002-33 | KNG002W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | .258J | 1 | NA | 1 | .035 | 07/17/0611:26 | 07/12/0610:00 | KNG002-36 | KNG002-33 | KNG002W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 351.3
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: KNG002WL/C

DATE RECEIVED: 07/12/06
DATE EXTRACTED: 07/12/06 10:00
DATE ANALYZED: 07/17/06 11:18/11:19

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD % | QC LIMIT % | RPD LIMIT % |
|---|---|---|---|---|---|---|---|---|---|---|
| TKN | ND | 1 | 1.12 | 112 | 1 | .968 | 97 | 15 | 80-120 | 20 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 370.1
## DISSOLVED SILICA

Five (5) water samples were received on 07/07/06 for Dissolved Silica analysis by Method 370.1 in accordance with "Method for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

**1. Holding Time**

Analysis met holding time criteria.

**2. Method Blank**

Method blank was free of contamination at the reporting limit.

**3. Lab Control Sample/Lab Control Sample Duplicate**

Lab control results were within QC limit.

**4. Duplicate**

Sample G027-08 was analyzed for duplicate. %RPD was within QC limit.

**5. Matrix Spike**

Sample G027-08 was spiked. %Recoveries were within QC limit.

**6. Sample Analysis**

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 370.1
DISSOLVED SILICA

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I70

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | SIG004WB | ND | 1 | NA | 2 | 1 | 07/19/0616:00 | NA | SIG004-10 | SIG004-08 | SIG004W | NA | NA |
| LCS1W | SIG004WL | 14.4 | 1 | NA | 2 | 1 | 07/19/0616:01 | NA | SIG004-11 | SIG004-08 | SIG004W | NA | NA |
| LCD1W | SIG004WC | 14.5 | 1 | NA | 2 | 1 | 07/19/0616:02 | NA | SIG004-12 | SIG004-08 | SIG004W | NA | NA |
| OC2-PMW23B-0-13 | G027-01R | 31.5 | 2 | NA | 4 | 2 | 07/19/0616:12 | NA | SIG004-22 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03R | 32.3 | 2 | NA | 4 | 2 | 07/19/0616:14 | NA | SIG004-24 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05R | 32.7 | 2 | NA | 4 | 2 | 07/19/0616:16 | NA | SIG004-26 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | 24.5 | 1 | NA | 2 | 1 | 07/19/0616:17 | NA | SIG004-27 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08R | 50.0 | 10 | NA | 20 | 10 | 07/19/0616:19 | NA | SIG004-29 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12DUP | G027-08D | 50.4 | 10 | NA | 20 | 10 | 07/19/0616:20 | NA | SIG004-30 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12MS | G027-08M | 62.3 | 10 | NA | 20 | 10 | 07/19/0616:21 | NA | SIG004-31 | SIG004-20 | SIG004W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 370.1
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: SIG004WL/C

DATE RECEIVED: NA
DATE EXTRACTED: NA
DATE ANALYZED: 07/19/06 16:01/16:02

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD % | QC LIMIT % | RPD LIMIT % |
|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Silica | ND | 15 | 14.4 | 96 | 15 | 14.5 | 97 | 1 | 80-120 | 20 |

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 370.1
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: OC2-PMW14-0-12MS
CONTROL NO.: G027-08M

DATE RECEIVED: 07/07/06
DATE EXTRACTED: NA
DATE ANALYZED: 07/19/06 16:20

ACCESSION:

| PARAMETER | SMPL RSLT (mg/L) | SPIKE AMT (mg/L) | MS RSLT (mg/L) | MS % REC | QC LIMIT ( % ) |
|---|---|---|---|---|---|
| Dissolved Silica | 50.0 | 15 | 62.3 | 82 | 75-125 |

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EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
METHOD: METHOD 370.1
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 06G027
SAMPLE ID: OC2-PMW14-0-12DUP
CONTROL NO.: G027-08D

DATE RECEIVED: 07/07/06
DATE EXTRACTED: NA
DATE ANALYZED: 07/19/06 16:19

ACCESSION:

| PARAMETER | SAMPLE (mg/L) | DUP. SAMPLE (mg/L) | RPD ( % ) | RPD LIMIT ( % ) |
|---|---|---|---|---|
| Dissolved Silica | 50.0 | 50.4 | 1 | 20 |

# CASE NARRATIVE

**CLIENT:** **ARCADIS**

**PROJECT:** **OMEGA CHEMICAL**

**SDG:** **06G027**

## METHOD 415.1
## TOC

Five (5) water samples were received on 07/07/06 for TOC analysis by Method 415.1 in accordance with "Method for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Duplicate**

   Duplicate sample was not designated in this SDG.

5. **Matrix Spike**

   MS sample was not designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 415.1
TOC

Client : ARCADIS
Project : OMEGA CHEMICAL
Batch No. : 06G027

Matrix : WATER
Instrument ID : I62

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MBLK1W | TCG012WB | ND | 1 | NA | 2 | .5 | 07/18/0600:29 | NA | TCG012-5 | TCG012-2 | TCG012W | NA | NA |
| LCS1W | TCG012WL | 24.9 | 1 | NA | 2 | .5 | 07/18/0600:39 | NA | TCG012-6 | TCG012-2 | TCG012W | NA | NA |
| LCD1W | TCG012WC | 25 | 1 | NA | 2 | .5 | 07/18/0600:49 | NA | TCG012-7 | TCG012-2 | TCG012W | NA | NA |
| OC2-PMW23B-0-13 | G027-01 | 1.52J | 1 | NA | 2 | .5 | 07/18/0604:05 | NA | TCG012-28 | TCG012-26 | TCG012W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-0-14 | G027-03 | 1.67J | 1 | NA | 2 | .5 | 07/18/0604:14 | NA | TCG012-29 | TCG012-26 | TCG012W | 07/07/06 | 07/07/06 |
| OC2-PMW23C-1-15 | G027-05 | 1.53J | 1 | NA | 2 | .5 | 07/18/0604:23 | NA | TCG012-30 | TCG012-26 | TCG012W | 07/07/06 | 07/07/06 |
| OC2-PMW23D-0-16 | G027-07 | .64J | 1 | NA | 2 | .5 | 07/18/0604:32 | NA | TCG012-31 | TCG012-26 | TCG012W | 07/07/06 | 07/07/06 |
| OC2-PMW14-0-12 | G027-08 | 1.16J | 1 | NA | 2 | .5 | 07/18/0604:41 | NA | TCG012-32 | TCG012-26 | TCG012W | 07/07/06 | 07/07/06 |

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ARCADIS
PROJECT: OMEGA CHEMICAL
BATCH NO.: 06G027
METHOD: METHOD 415.1

| | | | | | |
|---|---|---|---|---|---|
| MATRIX: | WATER | | | % MOISTURE: | NA |
| DILUTION FACTOR: | 1 | 1 | 1 | | |
| SAMPLE ID: | MBLK1W | | | | |
| LAB SAMP ID: | TCG012WB | TCG012WL | TCG012WC | | |
| LAB FILE ID: | TCG012-5 | TCG012-6 | TCG012-7 | | |
| DATE EXTRACTED: | NA | NA | NA | DATE COLLECTED: | NA |
| DATE ANALYZED: | 07/18/0600:29 | 07/18/0600:39 | 07/18/0600:49 | DATE RECEIVED: | NA |
| PREP. BATCH: | TCG012W | TCG012W | TCG012W | | |
| CALIB. REF: | TCG012-2 | TCG012-2 | TCG012-2 | | |

ACCESSION:

| PARAMETER | BLNK RSLT (mg/L) | SPIKE AMT (mg/L) | BS RSLT (mg/L) | BS % REC | SPIKE AMT (mg/L) | BSD RSLT (mg/L) | BSD % REC | RPD ( % ) | QC LIMIT ( % ) | MAX RPD ( % ) |
|---|---|---|---|---|---|---|---|---|---|---|
| TOC | ND | 25 | 24.9 | 100 | 25 | 25 | 100 | 0 | 80-120 | 20 |

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# LABORATORY REPORT FOR

ARCADIS

OMEGA CHEMICAL

N-NITROSODIMETHYLAMINE BY GCMS

SDG#: 06G027

Your Project #: 06G027
Site: ARCADIS, OMEGA CHEMICALS

**Attention: Richard Beauvil**
EMAX LABORATORIES INC
1835 W 205TH ST
TORRANCE, CA
USA 90501

**Report Date: 2006/07/28**

# CERTIFICATE OF ANALYSIS

**MAXXAM JOB #: A669020**
**Received: 2006/07/11, 12:30**

Sample Matrix: Water
# Samples Received: 5

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Method Reference |
|---|---|---|---|---|---|
| Nitrosamines in Water by HRMS | 5 | 2006/07/13 | 2006/07/27 | Ont SOP 0121, 0710 | EPA 607 / 1625 mod |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

**MAXXAM ANALYTICS INC.**

MARY-ANNE JOHNSON, B.A, B.Sc.
Project Manager

MAJ/maj
encl.

Total cover pages: 1



6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A669020
Report Date: 2006/07/28

EMAX LABORATORIES INC
Client Project #: 06G027
Project name: ARCADIS, OMEGA CHEMICALS
Sampler Initials:

## SEMI-VOLATILE ORGANICS BY HRMS (WATER)

| Maxxam ID | | N04251 | N04252 | N04253 | | |
|---|---|---|---|---|---|---|
| Sampling Date | | 2006/07/07 12:15 | 2006/07/07 14:40 | 2006/07/07 14:40 | | |
| | **Units** | **OC2-PMW23B-0-13 (1LAG BROKEN)** | **OC2-PMW23C-0-14** | **OC2-PMW23C-1-15 (1LAG BROKEN)** | **RDL** | **QC Batch** |
| N-Nitrosodimethylamine | ng/L | ND | 4.51 | 4.29 | 2.00 | 1010828 |
| **Surrogate Recovery (%)** | | | | | | |
| D6-N-Nitrosodimethylamine | % | 30 | 33 | 35 | | 1010828 |

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

| Maxxam ID | | N04315 | N04316 | | |
|---|---|---|---|---|---|
| Sampling Date | | 2006/07/07 16:00 | 2006/07/07 09:15 | | |
| | **Units** | **OC2-PMW23D-0-16** | **OC2-PMW14-0-12** | **RDL** | **QC Batch** |
| N-Nitrosodimethylamine | ng/L | ND | ND | 2.00 | 1010828 |
| **Surrogate Recovery (%)** | | | | | |
| D6-N-Nitrosodimethylamine | % | 37 | 37 | | 1010828 |

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch



6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A669020
Report Date: 2006/07/28

EMAX LABORATORIES INC
Client Project #: 06G027
Project name: ARCADIS, OMEGA CHEMICALS
Sampler Initials:

**GENERAL COMMENTS**

**Results relate only to the items tested.**



6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

EMAX LABORATORIES INC
Attention: Richard Beauvil
Client Project #: 06G027
P.O. #:
Project name: ARCADIS, OMEGA CHEMICALS

# Quality Assurance Report

Maxxam Job Number: GA669020

| QA/QC Batch Num Init | QC Type | Parameter | Date Analyzed yyyy/mm/dd | Value | Recovery | Units | QC Limits |
|---|---|---|---|---|---|---|---|
| 1010828 EM | Spiked Blank | D6-N-Nitrosodimethylamine | 2006/07/27 | | 36 | % | 10 - 81 |
| | | N-Nitrosodimethylamine | 2006/07/27 | | 110 | % | 65 - 135 |
| | RPD | N-Nitrosodimethylamine | 2006/07/27 | 0.06 | | % | 25 |
| | Method Blank | D6-N-Nitrosodimethylamine | 2006/07/27 | | 37 | % | 10 - 81 |
| | | N-Nitrosodimethylamine | 2006/07/27 | ND, RDL=2.00 | | ng/L | |

ND = Not detected
RPD = Relative Percent Difference
SPIKE = Fortified sample



6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: 905-817-5700 Toll free:800-563-6266 Fax: 905-817-5777

Maxxam Job #: A669020
Report Date: 2006/07/28

EMAX LABORATORIES INC
Client Project #: 06G027
Project name: ARCADIS, OMEGA CHEMICALS
Sampler Initials:

**SEMI-VOLATILE ORGANICS BY HRMS (WATER)**

| Maxxam ID | | N04251 | N04252 | N04253 |
|---|---|---|---|---|
| Sampling Date | | 7/7/06 12:15 | 7/7/06 14:40 | 7/7/06 14:40 |
| | **Units** | **OC2-PMW23B-0-13 (1LAG BROKEN)** | **OC2-PMW23C-0-14** | **OC2-PMW23C-1-15 (1LAG BROKEN)** |
| N-Nitrosodimethylamine | ng/L | ND | 4.51 | 4.29 |
| **Surrogate Recovery (%)** | | | | |
| D6-N-Nitrosodimethylamine | % | 30 | 33 | 35 |

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

| | | | |
|---|---|---|---|
| N04315 | N04316 | | |
| 7/7/06 16:00 | 7/7/06 9:15 | | |
| **OC2-PMW23D-0-16** | **OC2-PMW14-0-12** | **RDL** | **QC Batch** |
| ND | ND | 2 | 1010828 |
| | | | |
| 37 | 37 | | 1010828 |

# CHAIN OF CUSTODY

EMAX LABORATORIES, INC
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE
EMAX CONTROL NO. * 06G027
PROJECT CODE:

CLIENT: ARCADIS
PROJECT: Omega Chemicals OU-2
COORDINATOR
TEL. FAX EMAIL
SEND REPORT TO: Richard Beauvil
COMPANY: PMAX
ADDRESS
EMAX PM

| MATRIX CODE | PRESERVATIVE CODE |
|---|---|
| DW=Drinking Water | IC=Ice |
| GW=Ground Water | HC=HCl |
| WW=Waste Water | HN=HNO3 |
| SD=Solid Waste SL=Sludge | SH=NaOH |
| SS=Soil/Sediment | ST=Na2S2O3 |
| WP=Wipes FP=Free Product | ZA=Zinc Acetate |
| AR=Air | HS=$H_2SO_4$ |
| O= | |

ANALYSIS REQUIRED: NDMA

TAT: ☐ Rush ____ hrs. ☐ Rush ____ days ☐ 7 days ☒ 14 days ☐ 21 days ☐ 30 days ☐ ____ days ☐

| SAMPLE ID LAB | SAMPLE ID CLIENT | SAMPLING LOCATION | SAMPLING DATE | SAMPLING TIME | CONTAINER NO. | CONTAINER SIZE | CONTAINER TYPE | MATRIX CODE | QC | PRESERVATIVE CODE | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OC2-PMW23B-0-13 | | 7/7/06 | 1215 | 1 | 1L | Amber | GW | | X 1L aq Broken | 06G027-01 |
| 2 | OC2-PMW23C-0-14 | | 7/7/06 | 1440 | 1 | 1L | Amber | GW | | X | -03 |
| 3 | OC2-PMW23C-1-15 | | 7/7/06 | 1440 | 1 | 1L | Amber | GW | | X 1L aq Broken | -05 |
| 4 | OC2-PMW23D-0-16 | | 7/7/06 | 1600 | 1 | 1L | Amber | GW | | X | -07 |
| 5 | OC2-PMW14-0-12 | | 7/7/06 | 0915 | 1 | 1L | Amber | GW | | X | -08 |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |

Instructions

| Cooler # | Temp. (°C) |
|---|---|
| 1 | 8.0 |
| 2 | 5.7 |

Sample #s: HAXXAM Analytical, Inc. 5550 North Service Rd. Burlington, Ontario Canada L7L5H7

SAMPLER

| RELINQUISHED BY | Date | Time | RECEIVED BY | Date | Time |
|---|---|---|---|---|---|
| [signature] | 7/10/06 | 11:25 | [signature] | 7/10/06 | 12:30 |

COURIER/AIRBILL

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1300 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all costs associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.