
**5301 Northshore Drive**
**North Little Rock, AR 72118**
**Telephone: 501-682-0744**

**Client Report For:** Exxon Oil Spill Well Sampling 2013 2061-2075
**Attention:**
**Client Address:**
,

**Report Date:** June 13, 2013
**LAB ID:** AR13JUN06-01
**Comment:**

Approved By:_____ Date:June 13, 2013

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2061
**Client Sample ID:** TW-44-02
**Collection Date:** 6/5/2013 9:30:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 101 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 95.0 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 94.6 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 100 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | 0.759 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | ug/L |
| Toluene | 0.602 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 10:51 AM | | | |

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**Client:** Special Samples
**Lab ID:** 2013-2062

**Client Sample ID:** TW-44-01 Deep
**Collection Date:** 6/5/2013 10:00:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.1 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 93.7 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 92.3 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 103 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 0.596 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 11:16 AM | | | |

Arkansas Department of Environmental Quality
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North Liitle Rock, AR 72118

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**Client:** Special Samples
**Lab ID:** 2013-2063

**Client Sample ID:** TW-44-03
**Collection Date:** 6/5/2013 10:20:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.6 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 92.3 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 91.7 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 101 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | <0.57 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 11:41 AM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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**Client:** Special Samples
**Lab ID:** 2013-2064

**Client Sample ID:** TW-40-01
**Collection Date:** 6/5/2013 10:35:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 98.5 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 92.0 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 90.0 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 99.1 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 1.28 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | 0.519 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 12:06 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2065
**Client Sample ID:** TW-36-01 Deep
**Collection Date:** 6/5/2013 10:50:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.1 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 95.9 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 90.4 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 102 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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Laboratory Contact: Jeff Ruehr
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| | | | | |
|---|---|---|---|---|
| Toluene | 0.575 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 12:31 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2066

**Client Sample ID:** TW-36-02
**Collection Date:** 6/5/2013 11:30:00 AM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 101 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 96.6 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 94.4 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 104 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | 4.55 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | 25.6 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
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| | | | | |
|---|---|---|---|---|
| Toluene | 3.03 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | 61.7 | 1.2 | 1.2 | ug/L |
| o-Xylene | 27.7 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | 2.34 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | 10.6 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | 10.6 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 12:56 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2067

**Client Sample ID:** TW-36-04 Deep
**Collection Date:** 6/5/2013 12:30:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.3 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 94.3 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 93.0 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 101 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
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| | | | | |
|---|---|---|---|---|
| Toluene | 0.574 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 14:12 | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2068

**Client Sample ID:** TW-32-01
**Collection Date:** 6/5/2013 1:00:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 106 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 95.6 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 94.5 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 107 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | | | |
|---|---|---|---|---|
| Toluene | 0.57 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 4:17 PM | | | |

Arkansas Department of Environmental Quality
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North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2069

**Client Sample ID:** TW-24-03
**Collection Date:** 6/5/2013 1:30:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.8 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 92.9 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 89.3 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 103 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | | | |
|---|---|---|---|---|
| Toluene | 0.58 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 4:43 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2070

**Client Sample ID:** TW-24-03 Deep
**Collection Date:** 6/5/2013 1:45:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 102 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 92.2 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 91.1 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 97.9 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 0.591 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 5:08 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2071

**Client Sample ID:** TW-24-02
**Collection Date:** 6/5/2013 2:15:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 98.3 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 91.5 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 91.0 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 102 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | 22.9 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
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501-682-0955

| | | | | |
|---|---|---|---|---|
| Toluene | 0.591 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 5:32 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2072

**Client Sample ID:** TW-24-01
**Collection Date:** 6/5/2013 2:40:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 104 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 95.5 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 93.6 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 103 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

Arkansas Department of Environmental Quality
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| | | | | |
|---|---|---|---|---|
| Toluene | 8.42 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 5:58 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2073

**Client Sample ID:** TW-36-03 Deep
**Collection Date:** 6/5/2013 3:20:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 103 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 97.0 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 94.4 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 101 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 0.631 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 6:23 PM | | | |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2074

**Client Sample ID:** TW-32-02
**Collection Date:** 6/5/2013 3:45:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 99.5 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 93.4 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 95.1 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 104 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | 2.52 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 0.613 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | <0.53 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 6:48 PM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2075

**Client Sample ID:** Trip Blank
**Collection Date:** 6/4/2013 3:00:00 PM
**Matrix:** Groundwater

Analyses

***Volatile Organics by GCMS*** ***EPA 8260C*** ***Batch: 13061003*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *Dibromofluoromethane (% Recovery)* | 103 | 70-130 | | | % |
| *1,2-Dichloroethane-d4 (% Recovery)* | 96.6 | 70-130 | | | % |
| *Toluene-d8 (% Recovery)* | 92.7 | 70-130 | | | % |
| *4-Bromofluorobenzene (% Recovery)* | 101 | 70-130 | | | % |
| Dichlorodifluoromethane | <1.12 | 1.12 | 1.12 | | ug/L |
| Chloromethane | <0.58 | 0.58 | 0.58 | | ug/L |
| Vinyl chloride | <0.82 | 0.82 | 0.82 | | ug/L |
| Bromomethane | <3.9 | 3.9 | 3.90 | | ug/L |
| Chloroethane | <2.68 | 2.68 | 2.68 | | ug/L |
| Trichlorofluoromethane | <0.51 | 0.51 | 0.51 | | ug/L |
| 1,1-Dichloroethene | <0.43 | 0.43 | 0.43 | | ug/L |
| Acetone | <10.5 | 10.5 | 10.5 | | ug/L |
| Methylene chloride | <2.5 | 2.5 | 2.5 | | ug/L |
| Methyl tert-butyl ether | <0.83 | 0.83 | 0.83 | | ug/L |
| trans-1,2-Dichloroethene | <0.59 | 0.59 | 0.59 | | ug/L |
| 1,1-Dichloroethane | <0.42 | 0.42 | 0.42 | | ug/L |
| Methyl ethyl ketone | <12.8 | 12.8 | 12.8 | | ug/L |
| cis-1,2-Dichloroethene | <1.15 | 1.15 | 1.15 | | ug/L |
| 2,2-Dichloropropane | <0.81 | 0.81 | 0.81 | | ug/L |
| Bromochloromethane | <0.66 | 0.66 | 0.66 | | ug/L |
| Chloroform | <0.27 | 0.27 | 0.27 | | ug/L |
| 1,1,1-Trichloroethane | <0.46 | 0.46 | 0.46 | | ug/L |
| 1,1-Dichloropropene | <0.59 | 0.59 | 0.59 | | ug/L |
| Carbon tetrachloride | <0.6 | 0.6 | 0.6 | | ug/L |
| Benzene | <0.66 | 0.66 | 0.66 | | ug/L |
| 1,2-Dichloroethane | <1.15 | 1.15 | 1.15 | | ug/L |
| Trichloroethene | <0.6 | 0.6 | 0.60 | | ug/L |
| 1,2-Dichloropropane | <0.98 | 0.98 | 0.98 | | ug/L |
| Dibromomethane | <1.78 | 1.78 | 1.78 | | ug/L |
| Bromodichloromethane | <0.65 | 0.65 | 0.65 | | ug/L |
| cis-1,3-Dichloropropene | <0.86 | 0.86 | 0.86 | | ug/L |
| Methyl isobutyl ketone | <8.1 | 8.1 | 8.10 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| Toluene | 0.586 | 0.57 | 0.57 | ug/L |
| trans-1,3-Dichloropropene | <0.84 | 0.84 | 0.84 | ug/L |
| 1,1,2-Trichloroethane | <0.78 | 0.78 | 0.78 | ug/L |
| 2-Hexanone | <9.5 | 9.5 | 9.5 | ug/L |
| Tetrachloroethene | <0.96 | 0.96 | 0.96 | ug/L |
| 1,3-Dichloropropane | <0.94 | 0.94 | 0.94 | ug/L |
| Dibromochloromethane | <1.25 | 1.25 | 1.25 | ug/L |
| 1,2-Dibromoethane (EDB) | <0.68 | 0.68 | 0.68 | ug/L |
| Chlorobenzene | <0.62 | 0.62 | 0.62 | ug/L |
| Ethylbenzene | <0.51 | 0.51 | 0.51 | ug/L |
| 1,1,1,2-Tetrachloroethane | <0.57 | 0.57 | 0.57 | ug/L |
| m,p-Xylene | <1.2 | 1.2 | 1.2 | ug/L |
| o-Xylene | <0.5 | 0.5 | 0.5 | ug/L |
| Styrene | 1.32 | 0.53 | 0.53 | ug/L |
| Bromoform | <1.56 | 1.56 | 1.56 | ug/L |
| Isopropylbenzene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,1,2,2-Tetrachloroethane | <0.39 | 0.39 | 0.39 | ug/L |
| 1,2,3-Trichloropropane | <1.83 | 1.83 | 1.83 | ug/L |
| n-Propylbenzene | <0.49 | 0.49 | 0.49 | ug/L |
| Bromobenzene | <0.5 | 0.5 | 0.5 | ug/L |
| 1,3,5-Trimethylbenzene | <0.3 | 0.3 | 0.30 | ug/L |
| 2-Chlorotoluene | <0.66 | 0.66 | 0.66 | ug/L |
| 4-Chlorotoluene | <0.8 | 0.8 | 0.80 | ug/L |
| tert-Butylbenzene | <0.85 | 0.85 | 0.85 | ug/L |
| 1,2,4-Trimethylbenzene | <0.46 | 0.46 | 0.46 | ug/L |
| sec-Butylbenzene | <0.63 | 0.63 | 0.63 | ug/L |
| p-Isopropyltoluene | <0.59 | 0.59 | 0.59 | ug/L |
| 1,3-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,4-Dichlorobenzene | <0.53 | 0.53 | 0.53 | ug/L |
| n-Butylbenzene | <0.72 | 0.72 | 0.72 | ug/L |
| 1,2-Dichlorobenzene | <0.7 | 0.7 | 0.70 | ug/L |
| 1,2-Dibromo-3-chloropropane | <0.86 | 0.86 | 0.86 | ug/L |
| 1,2,4-Trichlorobenzene | <1.14 | 1.14 | 1.14 | ug/L |
| Naphthalene | <1.53 | 1.53 | 1.53 | ug/L |
| 1,2,3-Trichlorobenzene | <1.3 | 1.3 | 1.3 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Jeff Ruehr | | | |
| Analysis Date/Time | 6/7/2013 10:26 AM | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2065

**Client Sample ID:** TW-36-01 Deep
**Collection Date:** 6/5/2013 10:50:00 AM
**Matrix:** Groundwater

Analyses

***Semi-Volatiles by GC/MS*** ***EPA 3510C/EPA 8270D*** ***Batch: 13060604*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *2-Fluorophenol (% Recovery)* | 33.1 | 40-110 | | | % |
| *Nitrobenzene-d5 (% Recovery)* | 55.9 | 50-110 | | | % |
| *2-Fluorobiphenyl (% Recovery)* | 53.5 | 50-110 | | | % |
| *2,4,6-Tribromophenol (% Recovery)* | 69.1 | 40-110 | | | % |
| *Terphenyl-d14 (% Recovery)* | 77.4 | 50-110 | | | % |
| Methyl Methanesulfonate | <0.282 | 0.282 | 100 | | ug/L |
| Ethyl methanesulfonate | <0.282 | 0.282 | 100 | | ug/L |
| Phenol | <0.282 | 0.282 | 100 | | ug/L |
| Aniline | <0.282 | 0.282 | 100 | | ug/L |
| Bis(2-chloroethyl)ether | <0.282 | 0.282 | 100 | | ug/L |
| 2-Chlorophenol | <0.282 | 0.282 | 100 | | ug/L |
| 1,3-Dichlorobenzene | <0.169 | 0.169 | 60 | | ug/L |
| 1,4-Dichlorobenzene | <0.169 | 0.169 | 60 | | ug/L |
| Benzyl alcohol | <0.225 | 0.225 | 80 | | ug/L |
| 1,2-Dichlorobenzene | <0.169 | 0.169 | 60 | | ug/L |
| 2-Methylphenol | <0.141 | 0.141 | 50 | | ug/L |
| Acetophenone | <0.141 | 0.141 | 50 | | ug/L |
| 4-Methylphenol | <0.141 | 0.141 | 50 | | ug/L |
| N-Nitrosodi-n-propylamine | <0.282 | 0.282 | 100 | | ug/L |
| Hexachloroethane | <0.282 | 0.282 | 100 | | ug/L |
| Nitrobenzene | <0.282 | 0.282 | 100 | | ug/L |
| N-Nitrosopiperidine | <0.282 | 0.282 | 100 | | ug/L |
| Isophorone | <0.141 | 0.141 | 50 | | ug/L |
| 2-Nitrophenol | <0.422 | 0.422 | 150 | | ug/L |
| 2,4-Dimethylphenol | <0.141 | 0.141 | 50 | | ug/L |
| Bis(2-chloroethoxy)methane | <0.282 | 0.282 | 100 | | ug/L |
| 2,4-Dichlorophenol | <0.282 | 0.282 | 100 | | ug/L |
| 1,2,4-Trichlorobenzene | <0.169 | 0.169 | 60 | | ug/L |
| Naphthalene | <0.113 | 0.113 | 40 | | ug/L |
| 4-Chloroaniline | <0.141 | 0.141 | 50 | | ug/L |
| 2,6-Dichlorophenol | <0.282 | 0.282 | 100 | | ug/L |
| Hexachlorobutadiene | <0.282 | 0.282 | 100 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| N-Nitrosodibutylamine | <0.282 | 0.282 | 100 | ug/L |
| 4-Chloro-3-methylphenol | <0.225 | 0.225 | 80 | ug/L |
| 2-Methylnaphthalene | <0.141 | 0.141 | 50 | ug/L |
| 1,2,4,5-Tetrachlorobenzene | <0.141 | 0.141 | 50 | ug/L |
| Hexachlorocyclopentadiene | <0.225 | 0.225 | 80 | ug/L |
| 2,4,6-Trichlorophenol | <0.282 | 0.282 | 100 | ug/L |
| 2,4,5-Trichlorophenol | <0.282 | 0.282 | 100 | ug/L |
| 2-Chloronaphthalene | <0.141 | 0.141 | 50 | ug/L |
| 1-Chloronaphthalene | <0.141 | 0.141 | 50 | ug/L |
| 2-Nitroaniline | <0.282 | 0.282 | 100 | ug/L |
| Dimethyl phthalate | <0.282 | 0.282 | 100 | ug/L |
| 2,6-Dinitrotoluene | <0.282 | 0.282 | 100 | ug/L |
| Acenaphthylene | <0.113 | 0.113 | 40 | ug/L |
| 3-Nitroaniline | <0.282 | 0.282 | 100 | ug/L |
| Acenaphthene | <0.141 | 0.141 | 50 | ug/L |
| 2,4-Dinitrophenol | <5.63 | 5.63 | 2000 | ug/L |
| Pentachlorobenzene | <0.169 | 0.169 | 60 | ug/L |
| 4-Nitrophenol | <2.82 | 2.82 | 1000 | ug/L |
| Dibenzofuran | <0.141 | 0.141 | 50 | ug/L |
| 2,4-Dinitrotoluene | <0.282 | 0.282 | 100 | ug/L |
| 2,3,4,6-Tetrachlorophenol | <0.845 | 0.845 | 300 | ug/L |
| Diethyl phthalate | <0.282 | 0.282 | 100 | ug/L |
| Fluorene | <0.141 | 0.141 | 50 | ug/L |
| 4-Chlorophenyl phenyl ether | <0.141 | 0.141 | 50 | ug/L |
| 4-Nitroaniline | <0.282 | 0.282 | 100 | ug/L |
| 4,6-Dinitro-2-methylphenol | <8.45 | 8.45 | 3000 | ug/L |
| Diphenylamine | <0.141 | 0.141 | 50 | ug/L |
| Azobenzene | <0.113 | 0.113 | 40 | ug/L |
| 4-Bromophenyl phenyl ether | <0.282 | 0.282 | 100 | ug/L |
| Hexachlorobenzene | <0.225 | 0.225 | 80 | ug/L |
| Pentachlorophenol | <1.41 | 1.41 | 500 | ug/L |
| Pentachloronitrobenzene | <0.282 | 0.282 | 100 | ug/L |
| Pronamide | <0.282 | 0.282 | 100 | ug/L |
| Phenanthrene | <0.113 | 0.113 | 40 | ug/L |
| Anthracene | <0.113 | 0.113 | 40 | ug/L |
| Carbazole | <0.141 | 0.141 | 50 | ug/L |
| Di-n-butyl phthalate | 0.627 | 0.282 | 100 | ug/L |
| Fluoranthene | <0.113 | 0.113 | 40 | ug/L |
| Pyrene | <0.113 | 0.113 | 40 | ug/L |
| Dimethylaminoazobenzene | <0.282 | 0.282 | 100 | ug/L |

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| | | | | |
|---|---|---|---|---|
| Butyl benzyl phthalate | <0.422 | 0.422 | 150 | ug/L |
| Benzo (a) anthracene | <0.141 | 0.141 | 50 | ug/L |
| Chrysene | <0.141 | 0.141 | 50 | ug/L |
| Bis(2-ethylhexyl)phthalate | <0.422 | 0.422 | 150 | ug/L |
| Di-n-octyl phthalate | <0.422 | 0.422 | 150 | ug/L |
| Benzo (b) fluoranthene | <0.225 | 0.225 | 80 | ug/L |
| 7,12-Dimethylbenz (a) anthracene | <0.282 | 0.282 | 100 | ug/L |
| Benzo (k) fluoranthene | <0.225 | 0.225 | 80 | ug/L |
| Benzo (a) pyrene | <0.225 | 0.225 | 80 | ug/L |
| 3-Methylcholanthrene | <0.282 | 0.282 | 100 | ug/L |
| Indeno (1,2,3-cd) pyrene | <0.282 | 0.282 | 100 | ug/L |
| Dibenzo (a,h) anthracene | <0.225 | 0.225 | 80 | ug/L |
| Benzo (g,h,i) perylene | <0.225 | 0.225 | 80 | ug/L |
| Initial Volume | 355 | | | mL |
| Final Volume | 1 | | | mL |
| Dilution Factor | 1 | | | |
| Analyzed By | Ed Harris | | | |
| Analysis Date/Time | 6/6/2013 1:21 PM | | | |
| Prep By | Ed Harris | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | |

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**Client:** Special Samples
**Lab ID:** 2013-2066

**Client Sample ID:** TW-36-02
**Collection Date:** 6/5/2013 11:30:00 AM
**Matrix:** Groundwater

Analyses

***Semi-Volatiles by GC/MS*** ***EPA 3510C/EPA 8270D*** ***Batch: 13060604*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *2-Fluorophenol (% Recovery)* | 16.5 | 40-110 | | | % |
| *Nitrobenzene-d5 (% Recovery)* | 44.8 | 50-110 | | | % |
| *2-Fluorobiphenyl (% Recovery)* | 41.0 | 50-110 | | | % |
| *2,4,6-Tribromophenol (% Recovery)* | 27.2 | 40-110 | | | % |
| *Terphenyl-d14 (% Recovery)* | 81.4 | 50-110 | | | % |
| Methyl Methanesulfonate | <0.385 | 0.385 | 100 | | ug/L |
| Ethyl methanesulfonate | <0.385 | 0.385 | 100 | | ug/L |
| Phenol | <0.385 | 0.385 | 100 | | ug/L |
| Aniline | <0.385 | 0.385 | 100 | | ug/L |
| Bis(2-chloroethyl)ether | <0.385 | 0.385 | 100 | | ug/L |
| 2-Chlorophenol | <0.385 | 0.385 | 100 | | ug/L |
| 1,3-Dichlorobenzene | <0.231 | 0.231 | 60 | | ug/L |
| 1,4-Dichlorobenzene | <0.231 | 0.231 | 60 | | ug/L |
| Benzyl alcohol | 0.356 | 0.308 | 80 | | ug/L |
| 1,2-Dichlorobenzene | <0.231 | 0.231 | 60 | | ug/L |
| 2-Methylphenol | <0.192 | 0.192 | 50 | | ug/L |
| Acetophenone | 0.346 | 0.192 | 50 | | ug/L |
| 4-Methylphenol | <0.192 | 0.192 | 50 | | ug/L |
| N-Nitrosodi-n-propylamine | <0.385 | 0.385 | 100 | | ug/L |
| Hexachloroethane | <0.385 | 0.385 | 100 | | ug/L |
| Nitrobenzene | <0.385 | 0.385 | 100 | | ug/L |
| N-Nitrosopiperidine | <0.385 | 0.385 | 100 | | ug/L |
| Isophorone | <0.192 | 0.192 | 50 | | ug/L |
| 2-Nitrophenol | <0.577 | 0.577 | 150 | | ug/L |
| 2,4-Dimethylphenol | <0.192 | 0.192 | 50 | | ug/L |
| Bis(2-chloroethoxy)methane | <0.385 | 0.385 | 100 | | ug/L |
| 2,4-Dichlorophenol | <0.385 | 0.385 | 100 | | ug/L |
| 1,2,4-Trichlorobenzene | <0.231 | 0.231 | 60 | | ug/L |
| Naphthalene | 0.506 | 0.154 | 40 | | ug/L |
| 4-Chloroaniline | <0.192 | 0.192 | 50 | | ug/L |
| 2,6-Dichlorophenol | <0.385 | 0.385 | 100 | | ug/L |
| Hexachlorobutadiene | <0.385 | 0.385 | 100 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| N-Nitrosodibutylamine | <0.385 | 0.385 | 100 | ug/L |
| 4-Chloro-3-methylphenol | <0.308 | 0.308 | 80 | ug/L |
| 2-Methylnaphthalene | 0.420 | 0.192 | 50 | ug/L |
| 1,2,4,5-Tetrachlorobenzene | <0.192 | 0.192 | 50 | ug/L |
| Hexachlorocyclopentadiene | <0.308 | 0.308 | 80 | ug/L |
| 2,4,6-Trichlorophenol | <0.385 | 0.385 | 100 | ug/L |
| 2,4,5-Trichlorophenol | <0.385 | 0.385 | 100 | ug/L |
| 2-Chloronaphthalene | <0.192 | 0.192 | 50 | ug/L |
| 1-Chloronaphthalene | <0.192 | 0.192 | 50 | ug/L |
| 2-Nitroaniline | <0.385 | 0.385 | 100 | ug/L |
| Dimethyl phthalate | <0.385 | 0.385 | 100 | ug/L |
| 2,6-Dinitrotoluene | <0.385 | 0.385 | 100 | ug/L |
| Acenaphthylene | <0.154 | 0.154 | 40 | ug/L |
| 3-Nitroaniline | <0.385 | 0.385 | 100 | ug/L |
| Acenaphthene | <0.192 | 0.192 | 50 | ug/L |
| 2,4-Dinitrophenol | <7.69 | 7.69 | 2000 | ug/L |
| Pentachlorobenzene | <0.231 | 0.231 | 60 | ug/L |
| 4-Nitrophenol | <3.85 | 3.85 | 1000 | ug/L |
| Dibenzofuran | <0.192 | 0.192 | 50 | ug/L |
| 2,4-Dinitrotoluene | <0.385 | 0.385 | 100 | ug/L |
| 2,3,4,6-Tetrachlorophenol | <1.15 | 1.15 | 300 | ug/L |
| Diethyl phthalate | <0.385 | 0.385 | 100 | ug/L |
| Fluorene | <0.192 | 0.192 | 50 | ug/L |
| 4-Chlorophenyl phenyl ether | <0.192 | 0.192 | 50 | ug/L |
| 4-Nitroaniline | <0.385 | 0.385 | 100 | ug/L |
| 4,6-Dinitro-2-methylphenol | <11.5 | 11.5 | 3000 | ug/L |
| Diphenylamine | <0.192 | 0.192 | 50 | ug/L |
| Azobenzene | <0.154 | 0.154 | 40 | ug/L |
| 4-Bromophenyl phenyl ether | <0.385 | 0.385 | 100 | ug/L |
| Hexachlorobenzene | <0.308 | 0.308 | 80 | ug/L |
| Pentachlorophenol | <1.92 | 1.92 | 500 | ug/L |
| Pentachloronitrobenzene | <0.385 | 0.385 | 100 | ug/L |
| Pronamide | <0.385 | 0.385 | 100 | ug/L |
| Phenanthrene | <0.154 | 0.154 | 40 | ug/L |
| Anthracene | <0.154 | 0.154 | 40 | ug/L |
| Carbazole | <0.192 | 0.192 | 50 | ug/L |
| Di-n-butyl phthalate | 1.15 | 0.385 | 100 | ug/L |
| Fluoranthene | <0.154 | 0.154 | 40 | ug/L |
| Pyrene | <0.154 | 0.154 | 40 | ug/L |
| Dimethylaminoazobenzene | <0.385 | 0.385 | 100 | ug/L |

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| | | | | |
|---|---|---|---|---|
| Butyl benzyl phthalate | <0.577 | 0.577 | 150 | ug/L |
| Benzo (a) anthracene | <0.192 | 0.192 | 50 | ug/L |
| Chrysene | <0.192 | 0.192 | 50 | ug/L |
| Bis(2-ethylhexyl)phthalate | <0.577 | 0.577 | 150 | ug/L |
| Di-n-octyl phthalate | <0.577 | 0.577 | 150 | ug/L |
| Benzo (b) fluoranthene | <0.308 | 0.308 | 80 | ug/L |
| 7,12-Dimethylbenz (a) anthracene | <0.385 | 0.385 | 100 | ug/L |
| Benzo (k) fluoranthene | <0.308 | 0.308 | 80 | ug/L |
| Benzo (a) pyrene | <0.308 | 0.308 | 80 | ug/L |
| 3-Methylcholanthrene | <0.385 | 0.385 | 100 | ug/L |
| Indeno (1,2,3-cd) pyrene | <0.385 | 0.385 | 100 | ug/L |
| Dibenzo (a,h) anthracene | <0.308 | 0.308 | 80 | ug/L |
| Benzo (g,h,i) perylene | <0.308 | 0.308 | 80 | ug/L |
| Initial Volume | 260 | | | mL |
| Final Volume | 1 | | | mL |
| Dilution Factor | 1 | | | |
| Analyzed By | Ed Harris | | | |
| Analysis Date/Time | 6/6/2013 1:50 PM | | | |
| Prep By | Ed Harris | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | |

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**Client:** Special Samples
**Lab ID:** 2013-2067

**Client Sample ID:** TW-36-04 Deep
**Collection Date:** 6/5/2013 12:30:00 PM
**Matrix:** Groundwater

Analyses

***Semi-Volatiles by GC/MS*** ***EPA 3510C/EPA 8270D*** ***Batch: 13060604*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *2-Fluorophenol (% Recovery)* | 18.3 | 40-110 | | | % |
| *Nitrobenzene-d5 (% Recovery)* | 68.2 | 50-110 | | | % |
| *2-Fluorobiphenyl (% Recovery)* | 67.3 | 50-110 | | | % |
| *2,4,6-Tribromophenol (% Recovery)* | 42.1 | 40-110 | | | % |
| *Terphenyl-d14 (% Recovery)* | 84.5 | 50-110 | | | % |
| Methyl Methanesulfonate | <0.2 | 0.2 | 100 | | ug/L |
| Ethyl methanesulfonate | <0.2 | 0.2 | 100 | | ug/L |
| Phenol | <0.2 | 0.2 | 100 | | ug/L |
| Aniline | <0.2 | 0.2 | 100 | | ug/L |
| Bis(2-chloroethyl)ether | <0.2 | 0.2 | 100 | | ug/L |
| 2-Chlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| 1,3-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| 1,4-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| Benzyl alcohol | 0.202 | 0.16 | 80 | | ug/L |
| 1,2-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| 2-Methylphenol | <0.1 | 0.1 | 50 | | ug/L |
| Acetophenone | <0.1 | 0.1 | 50 | | ug/L |
| 4-Methylphenol | <0.1 | 0.1 | 50 | | ug/L |
| N-Nitrosodi-n-propylamine | <0.2 | 0.2 | 100 | | ug/L |
| Hexachloroethane | <0.2 | 0.2 | 100 | | ug/L |
| Nitrobenzene | <0.2 | 0.2 | 100 | | ug/L |
| N-Nitrosopiperidine | <0.2 | 0.2 | 100 | | ug/L |
| Isophorone | <0.1 | 0.1 | 50 | | ug/L |
| 2-Nitrophenol | <0.3 | 0.3 | 150 | | ug/L |
| 2,4-Dimethylphenol | <0.1 | 0.1 | 50 | | ug/L |
| Bis(2-chloroethoxy)methane | <0.2 | 0.2 | 100 | | ug/L |
| 2,4-Dichlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| 1,2,4-Trichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| Naphthalene | <0.08 | 0.08 | 40 | | ug/L |
| 4-Chloroaniline | <0.1 | 0.1 | 50 | | ug/L |
| 2,6-Dichlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| Hexachlorobutadiene | <0.2 | 0.2 | 100 | | ug/L |

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| | | | | |
|---|---|---|---|---|
| N-Nitrosodibutylamine | <0.2 | 0.2 | 100 | ug/L |
| 4-Chloro-3-methylphenol | <0.16 | 0.16 | 80 | ug/L |
| 2-Methylnaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 1,2,4,5-Tetrachlorobenzene | <0.1 | 0.1 | 50 | ug/L |
| Hexachlorocyclopentadiene | <0.16 | 0.16 | 80 | ug/L |
| 2,4,6-Trichlorophenol | <0.2 | 0.2 | 100 | ug/L |
| 2,4,5-Trichlorophenol | <0.2 | 0.2 | 100 | ug/L |
| 2-Chloronaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 1-Chloronaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 2-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| Dimethyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| 2,6-Dinitrotoluene | <0.2 | 0.2 | 100 | ug/L |
| Acenaphthylene | <0.08 | 0.08 | 40 | ug/L |
| 3-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| Acenaphthene | <0.1 | 0.1 | 50 | ug/L |
| 2,4-Dinitrophenol | <4 | 4 | 2000 | ug/L |
| Pentachlorobenzene | <0.12 | 0.12 | 60 | ug/L |
| 4-Nitrophenol | <2 | 2 | 1000 | ug/L |
| Dibenzofuran | <0.1 | 0.1 | 50 | ug/L |
| 2,4-Dinitrotoluene | <0.2 | 0.2 | 100 | ug/L |
| 2,3,4,6-Tetrachlorophenol | <0.6 | 0.6 | 300 | ug/L |
| Diethyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| Fluorene | <0.1 | 0.1 | 50 | ug/L |
| 4-Chlorophenyl phenyl ether | <0.1 | 0.1 | 50 | ug/L |
| 4-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| 4,6-Dinitro-2-methylphenol | <6 | 6 | 3000 | ug/L |
| Diphenylamine | <0.1 | 0.1 | 50 | ug/L |
| Azobenzene | <0.08 | 0.08 | 40 | ug/L |
| 4-Bromophenyl phenyl ether | <0.2 | 0.2 | 100 | ug/L |
| Hexachlorobenzene | <0.16 | 0.16 | 80 | ug/L |
| Pentachlorophenol | <1 | 1 | 500 | ug/L |
| Pentachloronitrobenzene | <0.2 | 0.2 | 100 | ug/L |
| Pronamide | <0.2 | 0.2 | 100 | ug/L |
| Phenanthrene | <0.08 | 0.08 | 40 | ug/L |
| Anthracene | <0.08 | 0.08 | 40 | ug/L |
| Carbazole | <0.1 | 0.1 | 50 | ug/L |
| Di-n-butyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| Fluoranthene | <0.08 | 0.08 | 40 | ug/L |
| Pyrene | <0.08 | 0.08 | 40 | ug/L |
| Dimethylaminoazobenzene | <0.2 | 0.2 | 100 | ug/L |

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| | | | | |
|---|---|---|---|---|
| Butyl benzyl phthalate | <0.3 | 0.3 | 150 | ug/L |
| Benzo (a) anthracene | <0.1 | 0.1 | 50 | ug/L |
| Chrysene | <0.1 | 0.1 | 50 | ug/L |
| Bis(2-ethylhexyl)phthalate | <0.3 | 0.3 | 150 | ug/L |
| Di-n-octyl phthalate | <0.3 | 0.3 | 150 | ug/L |
| Benzo (b) fluoranthene | <0.16 | 0.16 | 80 | ug/L |
| 7,12-Dimethylbenz (a) anthracene | <0.2 | 0.2 | 100 | ug/L |
| Benzo (k) fluoranthene | <0.16 | 0.16 | 80 | ug/L |
| Benzo (a) pyrene | <0.16 | 0.16 | 80 | ug/L |
| 3-Methylcholanthrene | <0.2 | 0.2 | 100 | ug/L |
| Indeno (1,2,3-cd) pyrene | <0.2 | 0.2 | 100 | ug/L |
| Dibenzo (a,h) anthracene | <0.16 | 0.16 | 80 | ug/L |
| Benzo (g,h,i) perylene | <0.16 | 0.16 | 80 | ug/L |
| Initial Volume | 500 | | | mL |
| Final Volume | 1 | | | mL |
| Dilution Factor | 1 | | | |
| Analyzed By | Ed Harris | | | |
| Analysis Date/Time | 6/6/2013 2:19 PM | | | |
| Prep By | Ed Harris | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2070

**Client Sample ID:** TW-24-03 Deep
**Collection Date:** 6/5/2013 1:45:00 PM
**Matrix:** Groundwater

Analyses

***Semi-Volatiles by GC/MS*** ***EPA 3510C/EPA 8270D*** ***Batch: 13060604*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| *2-Fluorophenol (% Recovery)* | 30.3 | 40-110 | | | % |
| *Nitrobenzene-d5 (% Recovery)* | 51.8 | 50-110 | | | % |
| *2-Fluorobiphenyl (% Recovery)* | 52.9 | 50-110 | | | % |
| *2,4,6-Tribromophenol (% Recovery)* | 73.9 | 40-110 | | | % |
| *Terphenyl-d14 (% Recovery)* | 77.3 | 50-110 | | | % |
| Methyl Methanesulfonate | <0.2 | 0.2 | 100 | | ug/L |
| Ethyl methanesulfonate | <0.2 | 0.2 | 100 | | ug/L |
| Phenol | <0.2 | 0.2 | 100 | | ug/L |
| Aniline | <0.2 | 0.2 | 100 | | ug/L |
| Bis(2-chloroethyl)ether | <0.2 | 0.2 | 100 | | ug/L |
| 2-Chlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| 1,3-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| 1,4-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| Benzyl alcohol | <0.16 | 0.16 | 80 | | ug/L |
| 1,2-Dichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| 2-Methylphenol | <0.1 | 0.1 | 50 | | ug/L |
| Acetophenone | <0.1 | 0.1 | 50 | | ug/L |
| 4-Methylphenol | <0.1 | 0.1 | 50 | | ug/L |
| N-Nitrosodi-n-propylamine | <0.2 | 0.2 | 100 | | ug/L |
| Hexachloroethane | <0.2 | 0.2 | 100 | | ug/L |
| Nitrobenzene | <0.2 | 0.2 | 100 | | ug/L |
| N-Nitrosopiperidine | <0.2 | 0.2 | 100 | | ug/L |
| Isophorone | <0.1 | 0.1 | 50 | | ug/L |
| 2-Nitrophenol | <0.3 | 0.3 | 150 | | ug/L |
| 2,4-Dimethylphenol | <0.1 | 0.1 | 50 | | ug/L |
| Bis(2-chloroethoxy)methane | <0.2 | 0.2 | 100 | | ug/L |
| 2,4-Dichlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| 1,2,4-Trichlorobenzene | <0.12 | 0.12 | 60 | | ug/L |
| Naphthalene | <0.08 | 0.08 | 40 | | ug/L |
| 4-Chloroaniline | <0.1 | 0.1 | 50 | | ug/L |
| 2,6-Dichlorophenol | <0.2 | 0.2 | 100 | | ug/L |
| Hexachlorobutadiene | <0.2 | 0.2 | 100 | | ug/L |

| | | | | |
|---|---|---|---|---|
| N-Nitrosodibutylamine | <0.2 | 0.2 | 100 | ug/L |
| 4-Chloro-3-methylphenol | <0.16 | 0.16 | 80 | ug/L |
| 2-Methylnaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 1,2,4,5-Tetrachlorobenzene | <0.1 | 0.1 | 50 | ug/L |
| Hexachlorocyclopentadiene | <0.16 | 0.16 | 80 | ug/L |
| 2,4,6-Trichlorophenol | <0.2 | 0.2 | 100 | ug/L |
| 2,4,5-Trichlorophenol | <0.2 | 0.2 | 100 | ug/L |
| 2-Chloronaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 1-Chloronaphthalene | <0.1 | 0.1 | 50 | ug/L |
| 2-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| Dimethyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| 2,6-Dinitrotoluene | <0.2 | 0.2 | 100 | ug/L |
| Acenaphthylene | <0.08 | 0.08 | 40 | ug/L |
| 3-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| Acenaphthene | <0.1 | 0.1 | 50 | ug/L |
| 2,4-Dinitrophenol | <4 | 4 | 2000 | ug/L |
| Pentachlorobenzene | <0.12 | 0.12 | 60 | ug/L |
| 4-Nitrophenol | <2 | 2 | 1000 | ug/L |
| Dibenzofuran | <0.1 | 0.1 | 50 | ug/L |
| 2,4-Dinitrotoluene | <0.2 | 0.2 | 100 | ug/L |
| 2,3,4,6-Tetrachlorophenol | <0.6 | 0.6 | 300 | ug/L |
| Diethyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| Fluorene | <0.1 | 0.1 | 50 | ug/L |
| 4-Chlorophenyl phenyl ether | <0.1 | 0.1 | 50 | ug/L |
| 4-Nitroaniline | <0.2 | 0.2 | 100 | ug/L |
| 4,6-Dinitro-2-methylphenol | <6 | 6 | 3000 | ug/L |
| Diphenylamine | <0.1 | 0.1 | 50 | ug/L |
| Azobenzene | <0.08 | 0.08 | 40 | ug/L |
| 4-Bromophenyl phenyl ether | <0.2 | 0.2 | 100 | ug/L |
| Hexachlorobenzene | <0.16 | 0.16 | 80 | ug/L |
| Pentachlorophenol | <1 | 1 | 500 | ug/L |
| Pentachloronitrobenzene | <0.2 | 0.2 | 100 | ug/L |
| Pronamide | <0.2 | 0.2 | 100 | ug/L |
| Phenanthrene | <0.08 | 0.08 | 40 | ug/L |
| Anthracene | <0.08 | 0.08 | 40 | ug/L |
| Carbazole | <0.1 | 0.1 | 50 | ug/L |
| Di-n-butyl phthalate | <0.2 | 0.2 | 100 | ug/L |
| Fluoranthene | <0.08 | 0.08 | 40 | ug/L |
| Pyrene | <0.08 | 0.08 | 40 | ug/L |
| Dimethylaminoazobenzene | <0.2 | 0.2 | 100 | ug/L |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | | | |
|---|---|---|---|---|
| Butyl benzyl phthalate | <0.3 | 0.3 | 150 | ug/L |
| Benzo (a) anthracene | <0.1 | 0.1 | 50 | ug/L |
| Chrysene | <0.1 | 0.1 | 50 | ug/L |
| Bis(2-ethylhexyl)phthalate | <0.3 | 0.3 | 150 | ug/L |
| Di-n-octyl phthalate | <0.3 | 0.3 | 150 | ug/L |
| Benzo (b) fluoranthene | <0.16 | 0.16 | 80 | ug/L |
| 7,12-Dimethylbenz (a) anthracene | <0.2 | 0.2 | 100 | ug/L |
| Benzo (k) fluoranthene | <0.16 | 0.16 | 80 | ug/L |
| Benzo (a) pyrene | <0.16 | 0.16 | 80 | ug/L |
| 3-Methylcholanthrene | <0.2 | 0.2 | 100 | ug/L |
| Indeno (1,2,3-cd) pyrene | <0.2 | 0.2 | 100 | ug/L |
| Dibenzo (a,h) anthracene | <0.16 | 0.16 | 80 | ug/L |
| Benzo (g,h,i) perylene | <0.16 | 0.16 | 80 | ug/L |
| Initial Volume | 500 | | | mL |
| Final Volume | 1 | | | mL |
| Dilution Factor | 1 | | | |
| Analyzed By | Ed Harris | | | |
| Analysis Date/Time | 6/6/2013 2:49 PM | | | |
| Prep By | Ed Harris | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | |

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
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**Client:** Special Samples
**Lab ID:** 2013-2061
**Client Sample ID:** TW-44-02
**Collection Date:** 6/5/2013 9:30:00 AM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | <40 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 0.703 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 22.2 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 1.76 | 0.4 | 0.01 | | mg/L |
| Manganese | 121 | 6 | 0.07 | | ug/L |
| Nickel | 10.6 | 10 | 0.15 | | ug/L |
| Potassium | <0.4 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 25.0 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 15.2 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | <20 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 11:42AM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

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Laboratory Contact: Jeff Ruehr
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| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 7560 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 1.30 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 26.0 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 6750 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 2.08 | 2 | 0.1 | mg/L |
| Manganese | 192 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 15.1 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:05PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2062

**Client Sample ID:** TW-44-01 Deep
**Collection Date:** 6/5/2013 10:00:00 AM
**Matrix:** Groundwater

Analyses

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | 1160 | 400 | 20 | | ug/L |
| Antimony | <200 | 200 | 5 | | ug/L |
| Arsenic | <20 | 20 | 0.5 | | ug/L |
| Barium | <200 | 200 | 2.0 | | ug/L |
| Beryllium | <10 | 10 | 0.1 | | ug/L |
| Boron | <500 | 500 | 5.0 | | ug/L |
| Cadmium | <20 | 20 | 0.3 | | ug/L |
| Calcium | 266 | 0.8 | 0.04 | | mg/L |
| Chromium | <20 | 20 | 0.3 | | ug/L |
| Cobalt | <20 | 20 | 0.5 | | ug/L |
| Copper | <20 | 20 | 0.5 | | ug/L |
| Iron | 1090 | 400 | 10.0 | | ug/L |
| Lead | <20 | 20 | 0.1 | | ug/L |
| Magnesium | 590 | 2 | 0.1 | | mg/L |
| Manganese | 1010 | 20 | 0.2 | | ug/L |
| Nickel | <50 | 50 | 0.5 | | ug/L |
| Potassium | <20 | 20 | 0.05 | | mg/L |
| Selenium | <40 | 40 | 0.5 | | ug/L |
| Silver | <100 | 100 | 1.0 | | ug/L |
| Sodium | 1110 | 0.8 | 0.02 | | mg/L |
| Thallium | <50 | 50 | 0.05 | | ug/L |
| Vanadium | <50 | 50 | 1.0 | | ug/L |
| Zinc | <60 | 60 | 2.0 | | ug/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 1:11PM | | | | |
| Prep By | | | | | |
| Prep Date/Time | | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2064

**Client Sample ID:** TW-40-01
**Collection Date:** 6/5/2013 10:35:00 AM
**Matrix:** Groundwater

Analyses

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | 18900 | 400 | 20 | | ug/L |
| Antimony | <200 | 200 | 5 | | ug/L |
| Arsenic | <20 | 20 | 0.5 | | ug/L |
| Barium | <200 | 200 | 2.0 | | ug/L |
| Beryllium | <10 | 10 | 0.1 | | ug/L |
| Boron | <500 | 500 | 5.0 | | ug/L |
| Cadmium | <20 | 20 | 0.3 | | ug/L |
| Calcium | 24.1 | 0.8 | 0.04 | | mg/L |
| Chromium | <20 | 20 | 0.3 | | ug/L |
| Cobalt | 48.1 | 20 | 0.5 | | ug/L |
| Copper | <20 | 20 | 0.5 | | ug/L |
| Iron | 14600 | 400 | 10.0 | | ug/L |
| Lead | 29.0 | 20 | 0.1 | | ug/L |
| Magnesium | 9.47 | 2 | 0.1 | | mg/L |
| Manganese | 3910 | 20 | 0.2 | | ug/L |
| Nickel | <50 | 50 | 0.5 | | ug/L |
| Potassium | <20 | 20 | 0.05 | | mg/L |
| Selenium | <40 | 40 | 0.5 | | ug/L |
| Silver | <100 | 100 | 1.0 | | ug/L |
| Sodium | 20.2 | 0.8 | 0.02 | | mg/L |
| Thallium | <50 | 50 | 0.05 | | ug/L |
| Vanadium | <50 | 50 | 1.0 | | ug/L |
| Zinc | 64.4 | 60 | 2.0 | | ug/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 1:17PM | | | | |
| Prep By | | | | | |
| Prep Date/Time | | | | | |

Arkansas Department of Environmental Quality
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Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2065
**Client Sample ID:** TW-36-01 Deep
**Collection Date:** 6/5/2013 10:50:00 AM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | 47.3 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 368 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | <10 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 725 | 0.4 | 0.01 | | mg/L |
| Manganese | 621 | 6 | 0.07 | | ug/L |
| Nickel | 53.4 | 10 | 0.15 | | ug/L |
| Potassium | 1.09 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 24.1 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 1410 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 3900 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 11:48AM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

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Laboratory Contact: Jeff Ruehr
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| | | Limit | | |
|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 368 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | <20 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | <400 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 801 | 2 | 0.1 | mg/L |
| Manganese | 805 | 20 | 0.2 | ug/L |
| Nickel | 67.5 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 1610 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:24PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
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North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
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**Client:** Special Samples
**Lab ID:** 2013-2066
**Client Sample ID:** TW-36-02
**Collection Date:** 6/5/2013 11:30:00 AM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | 49.5 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 4.74 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 55.0 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | 4800 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 3.15 | 0.4 | 0.01 | | mg/L |
| Manganese | 1870 | 6 | 0.07 | | ug/L |
| Nickel | 16.1 | 10 | 0.15 | | ug/L |
| Potassium | 1.89 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 13.6 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 12.0 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 24.8 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 11:55AM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
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Laboratory Contact: Jeff Ruehr
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| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 1970 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 6.37 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 52.1 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 6110 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 3.44 | 2 | 0.1 | mg/L |
| Manganese | 1720 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 10.7 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:30PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2067
**Client Sample ID:** TW-36-04 Deep
**Collection Date:** 6/5/2013 12:30:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | 55.7 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 149 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | <10 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 232 | 0.4 | 0.01 | | mg/L |
| Manganese | 636 | 6 | 0.07 | | ug/L |
| Nickel | <10 | 10 | 0.15 | | ug/L |
| Potassium | 0.965 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 26.9 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 922 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 1330 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:01PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 5850 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 102 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 34.4 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 4000 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 166 | 2 | 0.1 | mg/L |
| Manganese | 1480 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 724 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:36PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2069
**Client Sample ID:** TW-24-03
**Collection Date:** 6/5/2013 1:30:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | <40 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 1.46 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | <10 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 0.93 | 0.4 | 0.01 | | mg/L |
| Manganese | 110 | 6 | 0.07 | | ug/L |
| Nickel | <10 | 10 | 0.15 | | ug/L |
| Potassium | <0.4 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 30.2 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 15.1 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | <20 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:14PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 77.3 | 20 | 20 | ug/L |
| Antimony | <10 | 10 | 5 | ug/L |
| Arsenic | <1 | 1 | 0.5 | ug/L |
| Barium | <10 | 10 | 2.0 | ug/L |
| Beryllium | <0.5 | 0.5 | 0.1 | ug/L |
| Boron | <25 | 25 | 5.0 | ug/L |
| Cadmium | <1 | 1 | 0.3 | ug/L |
| Calcium | 94.2 | 0.04 | 0.04 | mg/L |
| Chromium | <1 | 1 | 0.3 | ug/L |
| Cobalt | <1 | 1 | 0.5 | ug/L |
| Copper | <1 | 1 | 0.5 | ug/L |
| Iron | 38.2 | 20 | 10.0 | ug/L |
| Lead | <1 | 1 | 0.1 | ug/L |
| Magnesium | 59.6 | 0.1 | 0.1 | mg/L |
| Manganese | 7.28 | 1 | 0.2 | ug/L |
| Nickel | <2.5 | 2.5 | 0.5 | ug/L |
| Potassium | 20.6 | 1 | 0.05 | mg/L |
| Selenium | <2 | 2 | 0.5 | ug/L |
| Silver | <5 | 5 | 1.0 | ug/L |
| Sodium | 783 | 0.04 | 0.02 | mg/L |
| Thallium | <2.5 | 2.5 | 0.05 | ug/L |
| Vanadium | <2.5 | 2.5 | 1.0 | ug/L |
| Zinc | <3 | 3 | 2.0 | ug/L |
| Dilution Factor | 1 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:49PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2070
**Client Sample ID:** TW-24-03 Deep
**Collection Date:** 6/5/2013 1:45:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | 51.1 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 186 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 69.6 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 233 | 0.4 | 0.01 | | mg/L |
| Manganese | 747 | 6 | 0.07 | | ug/L |
| Nickel | 89.6 | 10 | 0.15 | | ug/L |
| Potassium | 1.01 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 37.2 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 786 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 1420 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:20PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | | Limit | |
|---|---|---|---|---|
| Aluminum | 467 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 148 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 135 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | <400 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 187 | 2 | 0.1 | mg/L |
| Manganese | 1380 | 20 | 0.2 | ug/L |
| Nickel | 110 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 708 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 1:55PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2071

**Client Sample ID:** TW-24-02
**Collection Date:** 6/5/2013 2:15:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | <40 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 7.68 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 24.6 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | 25600 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 3.35 | 0.4 | 0.01 | | mg/L |
| Manganese | 3400 | 6 | 0.07 | | ug/L |
| Nickel | <10 | 10 | 0.15 | | ug/L |
| Potassium | 0.783 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 9.96 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 18.1 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 33.0 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:26PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 6790 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 11.5 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 32.7 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 37800 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 4.51 | 2 | 0.1 | mg/L |
| Manganese | 4600 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 13.4 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 2:14PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2072

**Client Sample ID:** TW-24-01
**Collection Date:** 6/5/2013 2:40:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | <40 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 5.50 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 32.0 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | 10600 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 2.26 | 0.4 | 0.01 | | mg/L |
| Manganese | 2230 | 6 | 0.07 | | ug/L |
| Nickel | <10 | 10 | 0.15 | | ug/L |
| Potassium | 0.757 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 8.27 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 4.5 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 23.0 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:33PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 9430 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 8.50 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 36.1 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 20200 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 3.29 | 2 | 0.1 | mg/L |
| Manganese | 2280 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 4.59 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 2:21PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

**Client:** Special Samples
**Lab ID:** 2013-2073

**Client Sample ID:** TW-36-03 Deep
**Collection Date:** 6/5/2013 3:20:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | 54.5 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 306 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | <10 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | <400 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 468 | 0.4 | 0.01 | | mg/L |
| Manganese | 402 | 6 | 0.07 | | ug/L |
| Nickel | 21.4 | 10 | 0.15 | | ug/L |
| Potassium | 1.04 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 25.4 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 1080 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | <20 | 20 | 0.3 | | ug/L |
| Hardness | 2690 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:39PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Liitle Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

| | | Limit | | |
|---|---|---|---|---|
| Aluminum | 1740 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 313 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | <20 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 1620 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 483 | 2 | 0.1 | mg/L |
| Manganese | 610 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 1140 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 2:27PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

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**Client:** Special Samples
**Lab ID:** 2013-2074

**Client Sample ID:** TW-32-02
**Collection Date:** 6/5/2013 3:45:00 PM
**Matrix:** Groundwater

Analyses

***Dissolved Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061201*** ***Run: 1***

| | Result | Reporting Limit | MDL | Qual | Unit |
|---|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | | ug/L |
| Antimony | <100 | 100 | 1.0 | | ug/L |
| Arsenic | <10 | 10 | 0.2 | | ug/L |
| Barium | <40 | 40 | 0.4 | | ug/L |
| Beryllium | <2 | 2 | 0.04 | | ug/L |
| Boron | <100 | 100 | 2.0 | | ug/L |
| Cadmium | <2 | 2 | 0.05 | | ug/L |
| Calcium | 4.60 | 0.6 | 0.03 | | mg/L |
| Chromium | <10 | 10 | 0.05 | | ug/L |
| Cobalt | 24.8 | 10 | 0.05 | | ug/L |
| Copper | <10 | 10 | 0.2 | | ug/L |
| Iron | 1270 | 400 | 5.0 | | ug/L |
| Lead | <6 | 6 | 0.02 | | ug/L |
| Magnesium | 1.99 | 0.4 | 0.01 | | mg/L |
| Manganese | 926 | 6 | 0.07 | | ug/L |
| Nickel | 14.0 | 10 | 0.15 | | ug/L |
| Potassium | 0.757 | 0.4 | 0.01 | | mg/L |
| Selenium | <20 | 20 | 0.2 | | ug/L |
| Silicon Dioxide | 17.1 | 1 | 0.01 | | mg/L |
| Silver | <10 | 10 | 0.02 | | ug/L |
| Sodium | 13.0 | 0.4 | 0.01 | | mg/L |
| Thallium | <10 | 10 | 0.005 | | ug/L |
| Vanadium | <10 | 10 | 0.3 | | ug/L |
| Zinc | 22.9 | 20 | 0.3 | | ug/L |
| Hardness | <20 | 20 | 1.0 | | mg/L |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:58PM | | | | |

***Total Metals by EPA 200.8*** ***EPA 200.8*** ***Batch: 13061202*** ***Run: 1***

| | Result | Reporting | MDL | Qual | Unit |
|---|---|---|---|---|---|

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| | | Limit | | |
|---|---|---|---|---|
| Aluminum | <400 | 400 | 20 | ug/L |
| Antimony | <200 | 200 | 5 | ug/L |
| Arsenic | <20 | 20 | 0.5 | ug/L |
| Barium | <200 | 200 | 2.0 | ug/L |
| Beryllium | <10 | 10 | 0.1 | ug/L |
| Boron | <500 | 500 | 5.0 | ug/L |
| Cadmium | <20 | 20 | 0.3 | ug/L |
| Calcium | 9.59 | 0.8 | 0.04 | mg/L |
| Chromium | <20 | 20 | 0.3 | ug/L |
| Cobalt | 61.6 | 20 | 0.5 | ug/L |
| Copper | <20 | 20 | 0.5 | ug/L |
| Iron | 2020 | 400 | 10.0 | ug/L |
| Lead | <20 | 20 | 0.1 | ug/L |
| Magnesium | 4.49 | 2 | 0.1 | mg/L |
| Manganese | 2800 | 20 | 0.2 | ug/L |
| Nickel | <50 | 50 | 0.5 | ug/L |
| Potassium | <20 | 20 | 0.05 | mg/L |
| Selenium | <40 | 40 | 0.5 | ug/L |
| Silver | <100 | 100 | 1.0 | ug/L |
| Sodium | 17.0 | 0.8 | 0.02 | mg/L |
| Thallium | <50 | 50 | 0.05 | ug/L |
| Vanadium | <50 | 50 | 1.0 | ug/L |
| Zinc | <60 | 60 | 2.0 | ug/L |
| Dilution Factor | 20 | | | |
| Analyzed By | Robert Graddy | | | |
| Analysis Date/Time | Jun 10 2013 2:33PM | | | |
| Prep By | | | | |
| Prep Date/Time | | | | |

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# Analytical Quality Control Results Report

| Batch: 13060604 | Semi-VOA water (Prep) |
|---|---|
| MB | LIMS ID: 13060604-MB-01 |

Semi Volatiles - water MB — Run: 1

| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Initial Volume | 500 mL | | | | |
| Final Volume | 1 mL | | | | |
| Prep By | Ed Harris | | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | | |
| 2-Fluorophenol (% Recovery) | 39.5 % | | | 40 - 110 | |
| Nitrobenzene-d5 (% Recovery) | 84.3 % | | | 40 - 125 | |
| 2-Fluorobiphenyl (% Recovery) | 78.4 % | | | 40 - 125 | |
| 2,4,6-Tribromophenol (% Recovery) | 76.7 % | | | 40 - 125 | |
| Terphenyl-d14 (% Recovery) | 96.4 % | | | 40 - 125 | |
| Methyl Methanesulfonate | <0.2 ug/L | 0.2 | 0.2 | | |
| Ethyl methanesulfonate | <0.2 ug/L | 0.2 | 0.2 | | |
| Phenol | <0.2 ug/L | 0.2 | 0.2 | | |
| Aniline | <0.2 ug/L | 0.2 | 0.2 | | |
| Bis(2-chloroethyl)ether | <0.2 ug/L | 0.2 | 0.2 | | |
| 2-Chlorophenol | <0.2 ug/L | 0.2 | 0.2 | | |
| 1,3-Dichlorobenzene | <0.12 ug/L | 0.12 | 0.12 | | |
| 1,4-Dichlorobenzene | <0.12 ug/L | 0.12 | 0.12 | | |
| Benzyl alcohol | 0.177 ug/L | 0.16 | 0.16 | | |
| 1,2-Dichlorobenzene | <0.12 ug/L | 0.12 | 0.12 | | |
| 2-Methylphenol | <0.1 ug/L | 0.1 | 0.1 | | |
| Acetophenone | <0.1 ug/L | 0.1 | 0.1 | | |
| 4-Methylphenol | <0.1 ug/L | 0.1 | 0.1 | | |
| N-Nitrosodi-n-propylamine | <0.2 ug/L | 0.2 | 0.2 | | |
| Hexachloroethane | <0.2 ug/L | 0.2 | 0.2 | | |
| Nitrobenzene | <0.2 ug/L | 0.2 | 0.2 | | |
| N-Nitrosopiperidine | <0.2 ug/L | 0.2 | 0.2 | | |
| Isophorone | <0.1 ug/L | 0.1 | 0.1 | | |
| 2-Nitrophenol | <0.3 ug/L | 0.3 | 0.3 | | |
| 2,4-Dimethylphenol | <0.1 ug/L | 0.1 | 0.1 | | |
| Bis(2-chloroethoxy)methane | <0.2 ug/L | 0.2 | 0.2 | | |
| 2,4-Dichlorophenol | <0.2 ug/L | 0.2 | 0.2 | | |

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| | | | |
|---|---|---|---|
| 1,2,4-Trichlorobenzene | <0.12 ug/L | 0.12 | 0.12 |
| Naphthalene | <0.08 ug/L | 0.08 | 0.08 |
| 4-Chloroaniline | <0.1 ug/L | 0.1 | 0.1 |
| 2,6-Dichlorophenol | <0.2 ug/L | 0.2 | 0.2 |
| Hexachlorobutadiene | <0.2 ug/L | 0.2 | 0.2 |
| N-Nitrosodibutylamine | <0.2 ug/L | 0.2 | 0.2 |
| 4-Chloro-3-methylphenol | <0.16 ug/L | 0.16 | 0.16 |
| 2-Methylnaphthalene | <0.12 ug/L | 0.12 | 0.12 |
| 1,2,4,5-Tetrachlorobenzene | <0.1 ug/L | 0.1 | 0.1 |
| Hexachlorocyclopentadiene | <0.16 ug/L | 0.16 | 0.16 |
| 2,4,6-Trichlorophenol | <0.2 ug/L | 0.2 | 0.2 |
| 2,4,5-Trichlorophenol | <0.2 ug/L | 0.2 | 0.2 |
| 2-Chloronaphthalene | <0.1 ug/L | 0.1 | 0.1 |
| 1-Chloronaphthalene | <0.1 ug/L | 0.1 | 0.1 |
| 2-Nitroaniline | <0.2 ug/L | 0.2 | 0.2 |
| Dimethyl phthalate | <0.2 ug/L | 0.2 | 0.2 |
| 2,6-Dinitrotoluene | <0.2 ug/L | 0.2 | 0.2 |
| Acenaphthylene | <0.08 ug/L | 0.08 | 0.08 |
| 3-Nitroaniline | <0.2 ug/L | 0.2 | 0.2 |
| Acenaphthene | <0.1 ug/L | 0.1 | 0.1 |
| 2,4-Dinitrophenol | <4 ug/L | 4 | 4 |
| Pentachlorobenzene | <0.12 ug/L | 0.12 | 0.12 |
| 4-Nitrophenol | <2 ug/L | 2 | 2 |
| Dibenzofuran | <0.1 ug/L | 0.1 | 0.1 |
| 2,4-Dinitrotoluene | <0.2 ug/L | 0.2 | 0.2 |
| 2,3,4,6-Tetrachlorophenol | <0.6 ug/L | 0.6 | 0.6 |
| Diethyl phthalate | <0.2 ug/L | 0.2 | 0.2 |
| Fluorene | <0.1 ug/L | 0.1 | 0.1 |
| 4-Chlorophenyl phenyl ether | <0.1 ug/L | 0.1 | 0.1 |
| 4-Nitroaniline | <0.2 ug/L | 0.2 | 0.2 |
| 4,6-Dinitro-2-methylphenol | <6 ug/L | 6 | 6 |
| Diphenylamine | <0.1 ug/L | 0.1 | 0.1 |
| Azobenzene | <0.08 ug/L | 0.08 | 0.08 |
| 4-Bromophenyl phenyl ether | <0.2 ug/L | 0.2 | 0.2 |
| Hexachlorobenzene | <0.16 ug/L | 0.16 | 0.16 |
| Pentachlorophenol | <1 ug/L | 1 | 1 |
| Pentachloronitrobenzene | <0.2 ug/L | 0.2 | 0.2 |
| Pronamide | <0.2 ug/L | 0.2 | 0.2 |
| Phenanthrene | <0.08 ug/L | 0.08 | 0.08 |
| Anthracene | <0.08 ug/L | 0.08 | 0.08 |

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| | | | | |
|---|---|---|---|---|
| Carbazole | <0.1 ug/L | 0.1 | 0.1 | |
| Di-n-butyl phthalate | 0.702 ug/L | 0.2 | 0.2 | |
| Fluoranthene | <0.08 ug/L | 0.08 | 0.08 | |
| Pyrene | <0.08 ug/L | 0.08 | 0.08 | |
| Dimethylaminoazobenzene | <0.2 ug/L | 0.2 | 0.2 | |
| Butyl benzyl phthalate | <0.3 ug/L | 0.3 | 0.3 | |
| Benzo (a) anthracene | <0.2 ug/L | 0.2 | 0.2 | |
| Chrysene | <0.1 ug/L | 0.1 | 0.1 | |
| Bis(2-ethylhexyl)phthalate | <0.3 ug/L | 0.3 | 0.3 | |
| Di-n-octyl phthalate | <0.3 ug/L | 0.3 | 0.3 | |
| Benzo (b) fluoranthene | <0.16 ug/L | 0.16 | 0.16 | |
| 7,12-Dimethylbenz (a) anthracene | <0.2 ug/L | 0.2 | 0.2 | |
| Benzo (k) fluoranthene | <0.16 ug/L | 0.16 | 0.16 | |
| Benzo (a) pyrene | <0.16 ug/L | 0.16 | 0.16 | |
| 3-Methylcholanthrene | <0.2 ug/L | 0.2 | 0.2 | |
| Indeno (1,2,3-cd) pyrene | <0.2 ug/L | 0.2 | 0.2 | |
| Dibenzo (a,h) anthracene | <0.16 ug/L | 0.16 | 0.16 | |
| Benzo (g,h,i) perylene | <0.16 ug/L | 0.16 | 0.16 | |
| Dilution Factor | 1 | | | |
| Analyzed By | Ed Harris | | | |
| Analysis Date/Time | 6/6/2013 12:22 | | | |

***LCS*** ***LIMS ID: 13060604-LCS-01***

***Semi Volatiles - water LCS*** ***Run: 1***

| ***Parameter*** | ***Result*** | ***DL*** | ***RL*** | ***Accuracy Control*** | ***Precision Control*** |
|---|---|---|---|---|---|
| Initial Volume | 500 mL | | | | |
| Final Volume | 1 mL | | | | |
| Prep By | Ed Harris | | | | |
| Prep Date/Time | 6/6/2013 08:00 | | | | |
| 2-Fluorophenol (% Recovery) | 51.2 % | | | 40 - 110 | |
| Nitrobenzene-d5 (% Recovery) | 90.4 % | | | 50 - 125 | |
| 2-Fluorobiphenyl (% Recovery) | 77.6 % | | | 50 - 125 | |
| 2,4,6-Tribromophenol (% Recovery) | 105 % | | | 40 - 125 | |
| Terphenyl-d14 (% Recovery) | 95.6 % | | | 50 - 125 | |
| Methyl Methanesulfonate (% Recovery) | 95.3 % | | | 50 - 150 | |
| Ethyl methanesulfonate (% Recovery) | 81.7 % | | | 50 - 150 | |
| Phenol (% Recovery) | 55.8 % | | | 50 - 150 | |
| Aniline (% Recovery) | 79.8 % | | | 50 - 150 | |
| Bis(2-chloroethyl)ether (% Recovery) | 109 % | | | 50 - 150 | |

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| | | |
|---|---|---|
| 2-Chlorophenol (% Recovery) | 97.8 % | 50 - 150 |
| 1,3-Dichlorobenzene (% Recovery) | 80.0 % | 50 - 150 |
| 1,4-Dichlorobenzene (% Recovery) | 80.9 % | 50 - 150 |
| Benzyl alcohol (% Recovery) | 119 % | 50 - 150 |
| 1,2-Dichlorobenzene (% Recovery) | 91.0 % | 50 - 150 |
| 2-Methylphenol (% Recovery) | 100 % | 50 - 150 |
| Acetophenone (% Recovery) | 111 % | 50 - 150 |
| 4-Methylphenol (% Recovery) | 82.6 % | 50 - 150 |
| N-Nitrosodi-n-propylamine (% Recovery) | 106 % | 50 - 150 |
| Hexachloroethane (% Recovery) | 78.7 % | 50 - 150 |
| Nitrobenzene (% Recovery) | 104 % | 50 - 150 |
| N-Nitrosopiperidine (% Recovery) | 122 % | 50 - 150 |
| Isophorone (% Recovery) | 110 % | 50 - 150 |
| 2-Nitrophenol (% Recovery) | 101 % | 50 - 150 |
| 2,4-Dimethylphenol (% Recovery) | 9.9 % | 50 - 150 |
| Bis(2-chloroethoxy)methane (% Recovery) | 94.6 % | 50 - 150 |
| 2,4-Dichlorophenol (% Recovery) | 102 % | 50 - 150 |
| 1,2,4-Trichlorobenzene (% Recovery) | 87.6 % | 50 - 150 |
| Naphthalene (% Recovery) | 96.8 % | 50 - 150 |
| 4-Chloroaniline (% Recovery) | 95.6 % | 50 - 150 |
| 2,6-Dichlorophenol (% Recovery) | 103 % | 50 - 150 |
| Hexachlorobutadiene (% Recovery) | 78.3 % | 50 - 150 |
| N-Nitrosodibutylamine (% Recovery) | 116 % | 50 - 150 |
| 4-Chloro-3-methylphenol (% Recovery) | 105 % | 50 - 150 |
| 2-Methylnaphthalene (% Recovery) | 99.2 % | 50 - 150 |
| 1,2,4,5-Tetrachlorobenzene (% Recovery) | 86.1 % | 50 - 150 |
| Hexachlorocyclopentadiene (% Recovery) | 90.3 % | 50 - 150 |
| 2,4,6-Trichlorophenol (% Recovery) | 96.5 % | 50 - 150 |
| 2,4,5-Trichlorophenol (% Recovery) | 96.4 % | 50 - 150 |
| 2-Chloronaphthalene (% Recovery) | 84.6 % | 50 - 150 |
| 1-Chloronaphthalene (% Recovery) | 81.3 % | 50 - 150 |
| 2-Nitroaniline (% Recovery) | 89.4 % | 50 - 150 |
| Dimethyl phthalate (% Recovery) | 99.3 % | 50 - 150 |
| 2,6-Dinitrotoluene (% Recovery) | 103 % | 50 - 150 |
| Acenaphthylene (% Recovery) | 97.1 % | 50 - 150 |
| 3-Nitroaniline (% Recovery) | 96.1 % | 50 - 150 |
| Acenaphthene (% Recovery) | 90.7 % | 50 - 150 |
| 2,4-Dinitrophenol (% Recovery) | 100 % | 50 - 150 |
| Pentachlorobenzene (% Recovery) | 97.7 % | 50 - 150 |
| 4-Nitrophenol (% Recovery) | 43.4 % | 50 - 150 |

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| | | |
|---|---|---|
| Dibenzofuran (% Recovery) | 94.7 % | 50 - 150 |
| 2,4-Dinitrotoluene (% Recovery) | 106 % | 50 - 150 |
| 2,3,4,6-Tetrachlorophenol (% Recovery) | 99.9 % | 50 - 150 |
| Diethyl phthalate (% Recovery) | 102 % | 50 - 150 |
| Fluorene (% Recovery) | 94.5 % | 50 - 150 |
| 4-Chlorophenyl phenyl ether (% Recovery) | 97.0 % | 50 - 150 |
| 4-Nitroaniline (% Recovery) | 81.2 % | 50 - 150 |
| 4,6-Dinitro-2-methylphenol (% Recovery) | 102 % | 50 - 150 |
| Diphenylamine (% Recovery) | 103 % | 50 - 150 |
| Azobenzene (% Recovery) | 105 % | 50 - 150 |
| 4-Bromophenyl phenyl ether (% Recovery) | 111 % | 50 - 150 |
| Hexachlorobenzene (% Recovery) | 105 % | 50 - 150 |
| Pentachlorophenol (% Recovery) | 114 % | 50 - 150 |
| Pentachloronitrobenzene (% Recovery) | 107 % | 50 - 150 |
| Pronamide (% Recovery) | 109 % | 50 - 150 |
| Phenanthrene (% Recovery) | 107 % | 50 - 150 |
| Anthracene (% Recovery) | 96.9 % | 50 - 150 |
| Carbazole (% Recovery) | 106 % | 50 - 150 |
| Di-n-butyl phthalate (% Recovery) | 157 % | 50 - 150 |
| Fluoranthene (% Recovery) | 99.6 % | 50 - 150 |
| Pyrene (% Recovery) | 100 % | 50 - 150 |
| Dimethylaminoazobenzene (% Recovery) | 102 % | 50 - 150 |
| Butyl benzyl phthalate (% Recovery) | 98.2 % | 50 - 150 |
| Benzo (a) anthracene (% Recovery) | 107 % | 50 - 150 |
| Chrysene (% Recovery) | 107 % | 50 - 150 |
| Bis(2-ethylhexyl)phthalate (% Recovery) | 99.9 % | 50 - 150 |
| Di-n-octyl phthalate (% Recovery) | 98.6 % | 50 - 150 |
| Benzo (b) fluoranthene (% Recovery) | 115 % | 50 - 150 |
| 7,12-Dimethylbenz (a) anthracene (% Recovery) | 107 % | 50 - 150 |
| Benzo (k) fluoranthene (% Recovery) | 114 % | 50 - 150 |
| Benzo (a) pyrene (% Recovery) | 110 % | 50 - 150 |
| 3-Methylcholanthrene (% Recovery) | 114 % | 50 - 150 |
| Indeno (1,2,3-cd) pyrene (% Recovery) | 96.9 % | 50 - 150 |
| Dibenzo (a,h) anthracene (% Recovery) | 104 % | 50 - 150 |
| Benzo (g,h,i) perylene (% Recovery) | 107 % | 50 - 150 |
| Dilution Factor | 1 | |
| Analyzed By | Ed Harris | |
| Analysis Date/Time | 6/6/2013 12:51 | |

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# Analytical Quality Control Results Report

| Batch: 13061003 | VOA - water |
|---|---|
| TW-36-04 Deep | LIMS ID: 2013-2067 |

*Volatiles - water DUP* — *Run: 1*

| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Dibromofluoromethane (% Recovery) | 100 % | | | 70 - 130 | |
| 1,2-Dichloroethane-d4 (% Recovery) | 91.6 % | | | 70 - 130 | |
| Toluene-d8 (% Recovery) | 89.1 % | | | 70 - 130 | |
| 4-Bromofluorobenzene (% Recovery) | 98.3 % | | | 70 - 130 | |
| Dichlorodifluoromethane | <1.12 ug/L | 1.12 | 1.12 | | |
| Dichlorodifluoromethane (RPD) | 0 % | | | | 0 - 20 |
| Chloromethane (RPD) | 0 % | | | | 0 - 20 |
| Chloromethane | <0.58 ug/L | 0.58 | 0.58 | | |
| Vinyl chloride | <0.82 ug/L | 0.82 | 0.82 | | |
| Vinyl chloride (RPD) | 0 % | | | | 0 - 20 |
| Bromomethane (RPD) | 0 % | | | | 0 - 20 |
| Bromomethane | <3.9 ug/L | 3.9 | 3.9 | | |
| Chloroethane | <2.68 ug/L | 2.68 | 2.68 | | |
| Chloroethane (RPD) | 0 % | | | | 0 - 20 |
| Trichlorofluoromethane (RPD) | 0 % | | | | 0 - 20 |
| Trichlorofluoromethane | <0.51 ug/L | 0.51 | 0.51 | | |
| 1,1-Dichloroethene (RPD) | 0 % | | | | 0 - 20 |
| 1,1-Dichloroethene | <0.43 ug/L | 0.43 | 0.43 | | |
| Acetone | <10.5 ug/L | 10.5 | 10.5 | | |
| Acetone (RPD) | 162 % | | | | 0 - 20 |
| Methylene chloride (RPD) | 2.4 % | | | | 0 - 20 |
| Methylene chloride | <2.5 ug/L | 2.5 | 2.5 | | |
| Methyl tert-butyl ether | <0.83 ug/L | 0.83 | 0.83 | | |
| Methyl tert-butyl ether (RPD) | 0 % | | | | 0 - 20 |
| trans-1,2-Dichloroethene (RPD) | 0 % | | | | 0 - 20 |
| trans-1,2-Dichloroethene | <0.59 ug/L | 0.59 | 0.59 | | |
| 1,1-Dichloroethane | <0.42 ug/L | 0.42 | 0.42 | | |
| 1,1-Dichloroethane (RPD) | 0 % | | | | 0 - 20 |
| Methyl ethyl ketone (RPD) | 47.3 % | | | | 0 - 20 |
| Methyl ethyl ketone | <12.8 ug/L | 12.8 | 12.8 | | |
| cis-1,2-Dichloroethene | <1.15 ug/L | 1.15 | 1.15 | | |
| cis-1,2-Dichloroethene (RPD) | 0 % | | | | 0 - 20 |
| 2,2-Dichloropropane (RPD) | 0 % | | | | 0 - 20 |

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| | | | | | |
|---|---|---|---|---|---|
| 2,2-Dichloropropane | <0.81 ug/L | 0.81 | 0.81 | | |
| Bromochloromethane | <0.66 ug/L | 0.66 | 0.66 | | |
| Bromochloromethane (RPD) | 0 % | | | | 0 - 20 |
| Chloroform (RPD) | 0 % | | | | 0 - 20 |
| Chloroform | <0.27 ug/L | 0.27 | 0.27 | | |
| 1,1,1-Trichloroethane | <0.46 ug/L | 0.46 | 0.46 | | |
| 1,1,1-Trichloroethane (RPD) | 0 % | | | | 0 - 20 |
| 1,1-Dichloropropene (RPD) | 0 % | | | | 0 - 20 |
| 1,1-Dichloropropene | <0.59 ug/L | 0.59 | 0.59 | | |
| Carbon tetrachloride | <0.6 ug/L | 0.6 | 0.6 | | |
| Carbon tetrachloride (RPD) | 0 % | | | | 0 - 20 |
| Benzene (RPD) | 0 % | | | | 0 - 20 |
| Benzene | <0.66 ug/L | 0.66 | 0.66 | | |
| 1,2-Dichloroethane | <1.15 ug/L | 1.15 | 1.15 | | |
| 1,2-Dichloroethane (RPD) | 0 % | | | | 0 - 20 |
| Trichloroethene (RPD) | 0 % | | | | 0 - 20 |
| Trichloroethene | <0.6 ug/L | 0.6 | 0.6 | | |
| 1,2-Dichloropropane | <0.98 ug/L | 0.98 | 0.98 | | |
| 1,2-Dichloropropane (RPD) | 0 % | | | | 0 - 20 |
| Dibromomethane (RPD) | 0 % | | | | 0 - 20 |
| Dibromomethane | <1.78 ug/L | 1.78 | 1.78 | | |
| Bromodichloromethane | <0.65 ug/L | 0.65 | 0.65 | | |
| Bromodichloromethane (RPD) | 0 % | | | | 0 - 20 |
| cis-1,3-Dichloropropene (RPD) | 0 % | | | | 0 - 20 |
| cis-1,3-Dichloropropene | <0.86 ug/L | 0.86 | 0.86 | | |
| Methyl isobutyl ketone | <8.1 ug/L | 8.1 | 8.1 | | |
| Methyl isobutyl ketone (RPD) | 0 % | | | | 0 - 20 |
| Toluene (RPD) | 0.9 % | | | | 0 - 20 |
| Toluene | 0.579 ug/L | 0.57 | 0.57 | | |
| trans-1,3-Dichloropropene | <0.84 ug/L | 0.84 | 0.84 | | |
| trans-1,3-Dichloropropene (RPD) | 0 % | | | | 0 - 20 |
| 1,1,2-Trichloroethane (RPD) | 0 % | | | | 0 - 20 |
| 1,1,2-Trichloroethane | <0.78 ug/L | 0.78 | 0.78 | | |
| 2-Hexanone | <9.5 ug/L | 9.5 | 9.5 | | |
| 2-Hexanone (RPD) | 0 % | | | | 0 - 20 |
| Tetrachloroethene (RPD) | 0 % | | | | 0 - 20 |
| Tetrachloroethene | <0.96 ug/L | 0.96 | 0.96 | | |
| 1,3-Dichloropropane | <0.94 ug/L | 0.94 | 0.94 | | |
| 1,3-Dichloropropane (RPD) | 0 % | | | | 0 - 20 |
| Dibromochloromethane (RPD) | 0 % | | | | 0 - 20 |

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| | | | | | |
|---|---|---|---|---|---|
| Dibromochloromethane | <1.25 ug/L | 1.25 | 1.25 | | |
| 1,2-Dibromoethane (EDB) | <0.68 ug/L | 0.68 | 0.68 | | |
| 1,2-Dibromoethane (EDB) (RPD) | 0 % | | | | 0 - 20 |
| Chlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| Chlorobenzene | <0.62 ug/L | 0.62 | 0.62 | | |
| Ethylbenzene | <0.51 ug/L | 0.51 | 0.51 | | |
| Ethylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,1,1,2-Tetrachloroethane (RPD) | 0 % | | | | 0 - 20 |
| 1,1,1,2-Tetrachloroethane | <0.57 ug/L | 0.57 | 0.57 | | |
| m,p-Xylene | <1.2 ug/L | 1.2 | 1.2 | | |
| m,p-Xylene (RPD) | 7.1 % | | | | 0 - 20 |
| o-Xylene (RPD) | 200 % | | | | 0 - 20 |
| o-Xylene | <0.5 ug/L | 0.5 | 0.5 | | |
| Styrene | <0.53 ug/L | 0.53 | 0.53 | | |
| Styrene (RPD) | 0 % | | | | 0 - 20 |
| Bromoform (RPD) | 0 % | | | | 0 - 20 |
| Bromoform | <1.56 ug/L | 1.56 | 1.56 | | |
| Isopropylbenzene | <0.59 ug/L | 0.59 | 0.59 | | |
| Isopropylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,1,2,2-Tetrachloroethane (RPD) | 0 % | | | | 0 - 20 |
| 1,1,2,2-Tetrachloroethane | <0.39 ug/L | 0.39 | 0.39 | | |
| 1,2,3-Trichloropropane | <1.83 ug/L | 1.83 | 1.83 | | |
| 1,2,3-Trichloropropane (RPD) | 0 % | | | | 0 - 20 |
| n-Propylbenzene (RPD) | 0 % | | | | 0 - 20 |
| n-Propylbenzene | <0.49 ug/L | 0.49 | 0.49 | | |
| Bromobenzene | <0.5 ug/L | 0.5 | 0.5 | | |
| Bromobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,3,5-Trimethylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,3,5-Trimethylbenzene | <0.3 ug/L | 0.3 | 0.3 | | |
| 2-Chlorotoluene | <0.66 ug/L | 0.66 | 0.66 | | |
| 2-Chlorotoluene (RPD) | 0 % | | | | 0 - 20 |
| 4-Chlorotoluene (RPD) | 0 % | | | | 0 - 20 |
| 4-Chlorotoluene | <0.8 ug/L | 0.8 | 0.8 | | |
| tert-Butylbenzene | <0.85 ug/L | 0.85 | 0.85 | | |
| tert-Butylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2,4-Trimethylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2,4-Trimethylbenzene | <0.46 ug/L | 0.46 | 0.46 | | |
| sec-Butylbenzene | <0.63 ug/L | 0.63 | 0.63 | | |
| sec-Butylbenzene (RPD) | 0 % | | | | 0 - 20 |
| p-Isopropyltoluene (RPD) | 0 % | | | | 0 - 20 |

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| | | | | | |
|---|---|---|---|---|---|
| p-Isopropyltoluene | <0.59 ug/L | 0.59 | 0.59 | | |
| 1,3-Dichlorobenzene | <0.7 ug/L | 0.7 | 0.7 | | |
| 1,3-Dichlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,4-Dichlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,4-Dichlorobenzene | <0.53 ug/L | 0.53 | 0.53 | | |
| n-Butylbenzene | <0.72 ug/L | 0.72 | 0.72 | | |
| n-Butylbenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2-Dichlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2-Dichlorobenzene | <0.7 ug/L | 0.7 | 0.7 | | |
| 1,2-Dibromo-3-chloropropane | <0.86 ug/L | 0.86 | 0.86 | | |
| 1,2-Dibromo-3-chloropropane (RPD) | 0 % | | | | 0 - 20 |
| 1,2,4-Trichlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2,4-Trichlorobenzene | <1.14 ug/L | 1.14 | 1.14 | | |
| Naphthalene | <1.53 ug/L | 1.53 | 1.53 | | |
| Naphthalene (RPD) | 0 % | | | | 0 - 20 |
| 1,2,3-Trichlorobenzene (RPD) | 0 % | | | | 0 - 20 |
| 1,2,3-Trichlorobenzene | <1.3 ug/L | 1.3 | 1.3 | | |
| Dilution Factor | 1 | | | | |
| Analyzed By | Jeff Ruehr | | | | |
| Analysis Date/Time | 6/7/2013 1:46 PM | | | | |

***TW-36-04 Deep*** ***LIMS ID: 2013-2067***

***Volatiles - water MS*** ***Run: 1***

| ***Parameter*** | ***Result*** | ***DL*** | ***RL*** | ***Accuracy Control*** | ***Precision Control*** |
|---|---|---|---|---|---|
| Dibromofluoromethane (% Recovery) | 96.7 % | | | 70 - 130 | |
| 1,2-Dichloroethane-d4 (% Recovery) | 92.1 % | | | 70 - 130 | |
| Toluene-d8 (% Recovery) | 89.5 % | | | 70 - 130 | |
| 4-Bromofluorobenzene (% Recovery) | 100 % | | | 70 - 130 | |
| 1,1-Dichloroethene (% Recovery) | 92.9 % | | | 70 - 130 | |
| Benzene (% Recovery) | 93.8 % | | | 70 - 130 | |
| Trichloroethene (% Recovery) | 89.9 % | | | 70 - 130 | |
| Toluene (% Recovery) | 83.9 % | | | 70 - 130 | |
| Chlorobenzene (% Recovery) | 91.0 % | | | 70 - 130 | |
| Dilution Factor | 1 | | | | |
| Analyzed By | Jeff Ruehr | | | | |
| Analysis Date/Time | 6/7/2013 2:37 PM | | | | |

***TW-36-04 Deep*** ***LIMS ID: 2013-2067***

***Volatiles - water MSD*** ***Run: 1***

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| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Dibromofluoromethane (% Recovery) | 101 % | | | 70 - 130 | |
| 1,2-Dichloroethane-d4 (% Recovery) | 95.4 % | | | 70 - 130 | |
| Toluene-d8 (% Recovery) | 89.2 % | | | 70 - 130 | |
| 4-Bromofluorobenzene (% Recovery) | 100 % | | | 70 - 130 | |
| 1,1-Dichloroethene (% Recovery) | 95.7 % | | | 70 - 130 | |
| 1,1-Dichloroethene (RPD) | 2.9 % | | | | 0 - 20 |
| Benzene (RPD) | 3.1 % | | | | 0 - 20 |
| Benzene (% Recovery) | 96.8 % | | | 70 - 130 | |
| Trichloroethene (RPD) | 2.3 % | | | | 0 - 20 |
| Trichloroethene (% Recovery) | 92.0 % | | | 70 - 130 | |
| Toluene (% Recovery) | 84.0 % | | | 70 - 130 | |
| Toluene (RPD) | 0.1 % | | | | 0 - 20 |
| Chlorobenzene (RPD) | 0.4 % | | | | 0 - 20 |
| Chlorobenzene (% Recovery) | 91.4 % | | | 70 - 130 | |
| Dilution Factor | 1 | | | | |
| Analyzed By | Jeff Ruehr | | | | |
| Analysis Date/Time | 6/7/2013 3:02 PM | | | | |

**LCS** — **LIMS ID: 13061003-LCS-01**

**Volatiles - water LCS** — **Run: 1**

| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Dibromofluoromethane (% Recovery) | 101 % | | | 70 - 130 | |
| 1,2-Dichloroethane-d4 (% Recovery) | 99.6 % | | | 70 - 130 | |
| Toluene-d8 (% Recovery) | 94.0 % | | | 70 - 130 | |
| 4-Bromofluorobenzene (% Recovery) | 93.6 % | | | 70 - 130 | |
| Dichlorodifluoromethane (% Recovery) | 106 % | | | 60 - 130 | |
| Chloromethane (% Recovery) | 82.0 % | | | 60 - 130 | |
| Vinyl chloride (% Recovery) | 93.2 % | | | 60 - 130 | |
| Bromomethane (% Recovery) | 58.0 % | | | 60 - 130 | |
| Chloroethane (% Recovery) | 81.6 % | | | 60 - 130 | |
| Trichlorofluoromethane (% Recovery) | 96.2 % | | | 60 - 130 | |
| 1,1-Dichloroethene (% Recovery) | 97.3 % | | | 60 - 130 | |
| Acetone (% Recovery) | 114 % | | | 60 - 130 | |
| Methylene chloride (% Recovery) | 98.6 % | | | 60 - 130 | |
| Methyl tert-butyl ether (% Recovery) | 95.7 % | | | 60 - 130 | |
| trans-1,2-Dichloroethene (% Recovery) | 95.7 % | | | 60 - 130 | |
| 1,1-Dichloroethane (% Recovery) | 99.6 % | | | 60 - 130 | |

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| | | |
|---|---|---|
| Methyl ethyl ketone (% Recovery) | 103 % | 60 - 130 |
| cis-1,2-Dichloroethene (% Recovery) | 96.4 % | 60 - 130 |
| 2,2-Dichloropropane (% Recovery) | 96.9 % | 60 - 130 |
| Bromochloromethane (% Recovery) | 97.7 % | 60 - 130 |
| Chloroform (% Recovery) | 96.9 % | 60 - 130 |
| 1,1,1-Trichloroethane (% Recovery) | 96.9 % | 60 - 130 |
| 1,1-Dichloropropene (% Recovery) | 94.6 % | 60 - 130 |
| Carbon tetrachloride (% Recovery) | 96.0 % | 60 - 130 |
| Benzene (% Recovery) | 96.2 % | 60 - 130 |
| 1,2-Dichloroethane (% Recovery) | 95.3 % | 60 - 130 |
| Trichloroethene (% Recovery) | 95.1 % | 60 - 130 |
| 1,2-Dichloropropane (% Recovery) | 94.8 % | 60 - 130 |
| Dibromomethane (% Recovery) | 93.5 % | 60 - 130 |
| Bromodichloromethane (% Recovery) | 96.0 % | 60 - 130 |
| cis-1,3-Dichloropropene (% Recovery) | 99.0 % | 60 - 130 |
| Methyl isobutyl ketone (% Recovery) | 93.8 % | 60 - 130 |
| Toluene (% Recovery) | 93.5 % | 60 - 130 |
| trans-1,3-Dichloropropene (% Recovery) | 99.2 % | 60 - 130 |
| 1,1,2-Trichloroethane (% Recovery) | 92.2 % | 60 - 130 |
| 2-Hexanone (% Recovery) | 98.7 % | 60 - 130 |
| Tetrachloroethene (% Recovery) | 93.1 % | 60 - 130 |
| 1,3-Dichloropropane (% Recovery) | 95.0 % | 60 - 130 |
| Dibromochloromethane (% Recovery) | 93.8 % | 60 - 130 |
| 1,2-Dibromoethane (EDB) (% Recovery) | 94.7 % | 60 - 130 |
| Chlorobenzene (% Recovery) | 97.4 % | 60 - 130 |
| Ethylbenzene (% Recovery) | 90.2 % | 60 - 130 |
| 1,1,1,2-Tetrachloroethane (% Recovery) | 95.2 % | 60 - 130 |
| m,p-Xylene (% Recovery) | 95.1 % | 60 - 130 |
| o-Xylene (% Recovery) | 97.0 % | 60 - 130 |
| Styrene (% Recovery) | 93.0 % | 60 - 130 |
| Bromoform (% Recovery) | 95.2 % | 60 - 130 |
| Isopropylbenzene (% Recovery) | 108 % | 60 - 130 |
| 1,1,2,2-Tetrachloroethane (% Recovery) | 93.8 % | 60 - 130 |
| 1,2,3-Trichloropropane (% Recovery) | 91.9 % | 60 - 130 |
| n-Propylbenzene (% Recovery) | 89.8 % | 60 - 130 |
| Bromobenzene (% Recovery) | 96.1 % | 60 - 130 |
| 1,3,5-Trimethylbenzene (% Recovery) | 93.7 % | 60 - 130 |
| 2-Chlorotoluene (% Recovery) | 65.7 % | 60 - 130 |
| 4-Chlorotoluene (% Recovery) | 91.5 % | 60 - 130 |
| tert-Butylbenzene (% Recovery) | 90.4 % | 60 - 130 |

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| | | |
|---|---|---|
| 1,2,4-Trimethylbenzene (% Recovery) | 92.1 % | 60 - 130 |
| sec-Butylbenzene (% Recovery) | 91.5 % | 60 - 130 |
| p-Isopropyltoluene (% Recovery) | 88.5 % | 60 - 130 |
| 1,3-Dichlorobenzene (% Recovery) | 92.8 % | 60 - 130 |
| 1,4-Dichlorobenzene (% Recovery) | 88.4 % | 60 - 130 |
| n-Butylbenzene (% Recovery) | 87.9 % | 60 - 130 |
| 1,2-Dichlorobenzene (% Recovery) | 94.7 % | 60 - 130 |
| 1,2-Dibromo-3-chloropropane (% Recovery) | 96.0 % | 60 - 130 |
| 1,2,4-Trichlorobenzene (% Recovery) | 91.5 % | 60 - 130 |
| Naphthalene (% Recovery) | 91.8 % | 60 - 130 |
| 1,2,3-Trichlorobenzene (% Recovery) | 92.2 % | 60 - 130 |
| Dilution Factor | 1 | |
| Analyzed By | Jeff Ruehr | |
| Analysis Date/Time | 6/7/2013 8:45 | |

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# Analytical Quality Control Results Report

| Batch: 13061201 | ICP Metals - water (Diss.) |
|---|---|
| TW-36-04 Deep | LIMS ID: 2013-2067 |

ICP Metals - water (Dissolved) DUP — Run: 1

| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Aluminum | <400 ug/L | 400 | 400 | | |
| Aluminum (RPD) | 3.0 % | | | | 0 - 20 |
| Antimony (RPD) | 0 % | | | | 0 - 20 |
| Antimony | <100 ug/L | 20 | 100 | | |
| Arsenic | <10 ug/L | 4 | 10 | | |
| Arsenic (RPD) | 13.3 % | | | | 0 - 20 |
| Barium (RPD) | 2.1 % | | | | 0 - 20 |
| Barium | 56.8 ug/L | 8 | 40 | | |
| Beryllium | <2 ug/L | 0.8 | 2 | | |
| Beryllium (RPD) | 0 % | | | | 0 - 20 |
| Boron (RPD) | 1.1 % | | | | 0 - 20 |
| Boron | <100 ug/L | 40 | 100 | | |
| Cadmium | <2 ug/L | 1 | 2 | | |
| Cadmium (RPD) | 54.5 % | | | | 0 - 20 |
| Calcium (RPD) | 0.1 % | | | | 0 - 20 |
| Calcium | 149 mg/L | 0.6 | 0.6 | | |
| Chromium | <10 ug/L | 1 | 10 | | |
| Chromium (RPD) | 0 % | | | | 0 - 20 |
| Cobalt (RPD) | 6.4 % | | | | 0 - 20 |
| Cobalt | <10 ug/L | 1 | 10 | | |
| Copper | <10 ug/L | 4 | 10 | | |
| Copper (RPD) | 1.9 % | | | | 0 - 20 |
| Iron (RPD) | 0 % | | | | 0 - 20 |
| Iron | <400 ug/L | 100 | 400 | | |
| Lead | <6 ug/L | 0.4 | 6 | | |
| Lead (RPD) | 0 % | | | | 0 - 20 |
| Magnesium (RPD) | 0.6 % | | | | 0 - 20 |
| Magnesium | 233 mg/L | 0.2 | 0.4 | | |
| Manganese | 680 ug/L | 1.4 | 6 | | |
| Manganese (RPD) | 6.3 % | | | | 0 - 20 |
| Nickel (RPD) | 7.5 % | | | | 0 - 20 |
| Nickel | 10 ug/L | 3 | 10 | | |
| Potassium | 0.967 mg/L | 0.2 | 0.4 | | |

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| | | | | | |
|---|---|---|---|---|---|
| Potassium (RPD) | 0.2 % | | | | 0 - 20 |
| Selenium (RPD) | 17.4 % | | | | 0 - 20 |
| Selenium | <20 ug/L | 4 | 20 | | |
| Silicon Dioxide | 27.1 mg/L | 0.2 | 1 | | |
| Silicon Dioxide (RPD) | 0.6 % | | | | 0 - 20 |
| Silver | <10 ug/L | 0.4 | 10 | | |
| Silver (RPD) | 0 % | | | | 0 - 20 |
| Sodium | 929 mg/L | 0.2 | 0.4 | | |
| Sodium (RPD) | 0.8 % | | | | 0 - 20 |
| Thallium (RPD) | 0 % | | | | 0 - 20 |
| Thallium | <10 ug/L | 0.1 | 10 | | |
| Vanadium (RPD) | 7.8 % | | | | 0 - 20 |
| Vanadium | <10 ug/L | 6 | 10 | | |
| Zinc | <20 ug/L | 6 | 20 | | |
| Zinc (RPD) | 110 % | | | | 0 - 20 |
| Hardness | 1330 mg/L | 20 | 20 | | |
| Hardness (RPD) | 0 % | | | | 0 - 20 |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 12:07PM | | | | |

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# Analytical Quality Control Results Report

| Batch: 13061202 | ICP Metals - water (total) |
|---|---|
| TW-36-04 Deep | LIMS ID: 2013-2067 |

ICP Metals - water (Total) DUP — Run: 1

| Parameter | Result | DL | RL | Accuracy Control | Precision Control |
|---|---|---|---|---|---|
| Aluminum | 7260 ug/L | 400 | 400 | | |
| Aluminum (RPD) | 21.6 % | | | | 0 - 20 |
| Antimony (RPD) | 0 % | | | | 0 - 20 |
| Antimony | <200 ug/L | 100 | 200 | | |
| Arsenic | <20 ug/L | 10 | 20 | | |
| Arsenic (RPD) | 9.1 % | | | | 0 - 20 |
| Barium (RPD) | 2.5 % | | | | 0 - 20 |
| Barium | <200 ug/L | 40 | 200 | | |
| Beryllium | <10 ug/L | 2 | 10 | | |
| Beryllium (RPD) | 12.5 % | | | | 0 - 20 |
| Boron (RPD) | 4.8 % | | | | 0 - 20 |
| Boron | <500 ug/L | 100 | 500 | | |
| Cadmium | <20 ug/L | 6 | 20 | | |
| Cadmium (RPD) | 12.8 % | | | | 0 - 20 |
| Calcium (RPD) | 5.9 % | | | | 0 - 20 |
| Calcium | 96.5 mg/L | 0.8 | 0.8 | | |
| Chromium | <20 ug/L | 6 | 20 | | |
| Chromium (RPD) | 16.2 % | | | | 0 - 20 |
| Cobalt (RPD) | 8.8 % | | | | 0 - 20 |
| Cobalt | 37.6 ug/L | 10 | 20 | | |
| Copper | <20 ug/L | 10 | 20 | | |
| Copper (RPD) | 1.6 % | | | | 0 - 20 |
| Iron (RPD) | 11.8 % | | | | 0 - 20 |
| Iron | 4510 ug/L | 200 | 400 | | |
| Lead | <20 ug/L | 2 | 20 | | |
| Lead (RPD) | 7.2 % | | | | 0 - 20 |
| Magnesium (RPD) | 4.2 % | | | | 0 - 20 |
| Magnesium | 159 mg/L | 2 | 2 | | |
| Manganese | 1500 ug/L | 4 | 20 | | |
| Manganese (RPD) | 1.0 % | | | | 0 - 20 |
| Nickel (RPD) | 5.2 % | | | | 0 - 20 |
| Nickel | <50 ug/L | 10 | 50 | | |
| Potassium | <20 mg/L | 1 | 20 | | |

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| | | | | | |
|---|---|---|---|---|---|
| Potassium (RPD) | 3.5 % | | | | 0 - 20 |
| Selenium (RPD) | 66.7 % | | | | 0 - 20 |
| Selenium | <40 ug/L | 10 | 40 | | |
| Silver | <100 ug/L | 20 | 100 | | |
| Silver (RPD) | 0 % | | | | 0 - 20 |
| Sodium | 699 mg/L | 0.4 | 0.8 | | |
| Sodium (RPD) | 3.5 % | | | | 0 - 20 |
| Thallium (RPD) | 0 % | | | | 0 - 20 |
| Thallium | <50 ug/L | 1 | 50 | | |
| Vanadium (RPD) | 7.5 % | | | | 0 - 20 |
| Vanadium | <50 ug/L | 20 | 50 | | |
| Zinc | <60 ug/L | 40 | 60 | | |
| Zinc (RPD) | 1.2 % | | | | 0 - 20 |
| Dilution Factor | 20 | | | | |
| Analyzed By | Robert Graddy | | | | |
| Analysis Date/Time | Jun 10 2013 1:43PM | | | | |