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ENVIRONMENT

Conor Shea, P.E.
Environmental Engineer I
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Subject:
July 2012 through December 2014 System Status Report
Soil Vapor Recovery System
United Stellar Industries Property
131 Sunnyside Boulevard Site, Plainview, New York

Date:
April 14, 2015

Contact:
Steve Feldman

Phone:
(631) 391-5244

Email:
Steven.Feldman@arcadis-us.com

Our ref:
NY001422.0004.00005

Dear Mr. Shea:

ARCADIS of New York, Inc. (ARCADIS) has prepared this system status report for the Vapor Recovery System (VRS), on behalf of 131 Sunnyside, LLC (Sunnyside), at the United Stellar Industries Property located at 131 Sunnyside Blvd. in Plainview, New York. The following report provides documentation of all monitoring activities and data evaluation conducted between July 1, 2012 and December 31, 2014 (hereinafter referred to as the reporting period).

**Background**

A letter report, summarizing the results of the VRS pilot test was submitted to the New York State Department of Environmental Conservation (NYSDEC) by ARCADIS on May 11, 2005. The VRS was restarted and is being operated in accordance with the VRS pilot test extension letter originally submitted to the NYSDEC on September 7, 2005, and modified based on the following:

- Revised and submitted by ARCADIS on November 18, 2005 based on NYSDEC comments, dated October 11, 2005.
- ARCADIS responses, dated May 15, 2006 based on NYSDEC comments, dated February 2, 2006.

On September 22, 2009, the NYSDEC accepted the system modifications proposed in the August 20, 2009 submittal, “Air Emission Regulatory Review and Current Status, Related Calculations, and Proposed Modifications to Current System Configuration and Monitoring Procedures” (Regulatory Review). As recommended in

the Regulatory Review, the vapor phase granular activated carbon (VPGAC) was taken off-line on December 3, 2009 and the frequency of performance and compliance monitoring was decreased from monthly to quarterly beginning with the Fourth Quarter of 2009. No complications were encountered during the system modification. During this reporting period the system was operated and the following ten performance monitoring events were conducted:

- September 13, 2012
- December 26, 2012
- March 26, 2013
- June 20, 2013
- September 19, 2013
- December 17, 2013
- March 27, 2014
- July, 1, 2014
- October 9, 2014
- December 23, 2014

Operational and volatile organic compound (VOC) data collected during the monitoring events are summarized in Tables 1, 2, and 3. A brief analysis of performance monitoring data is provided below.

**Vapor Recovery System Operation**

The VRS consists of three vacuum extraction locations (SVE-1, SVE-2 and SVE-3), six induced vacuum/vapor monitoring points (MP-1 through MP-6), a 5-horsepower regenerative blower, and a moisture separator. The two 400 pound VPGACs were removed from system operation on December 3, 2009. Control valves, monitoring gauges, and sample ports were installed as necessary to adjust system operation and provide a means for collecting the data provided within this report. All vapor samples were submitted to Air Toxics Laboratory in Folsom, California for laboratory analysis via Method TO-14 (Direct Inject).

**Results**

Operational measurements including applied vacuum levels at each extraction point, extraction air flow rates, and photo-ionization detector (PID) readings are summarized in Table 1. In summary, the VRS is operating as designed. Key observations are as follows:

- Air flow rates at the vacuum extraction points measured during this reporting period ranged from approximately 29.4 to 75.3 actual cubic feet per minute (acfm).

- VRS wellhead vacuum measurements during this reporting period ranged from -36.0 to -43.0 inches water column (in.W.C.).

- PID measurements during this reporting period ranged from 0.0 to 0.9 parts per million by volume (ppmv).

- Induced vacuum levels measured at the monitoring point locations (MP-1 through MP-6) are summarized below:

    - Negative vacuum levels were measured in monitoring points MP-1, MP-2, MP-5, and MP-6 during this reporting period.

    - Negative vacuum levels were measured in monitoring point MP-3 during the September 13, 2012, December 26, 2012, June 20, 2013, March 27, 2014, July 1, 2014, October 9, 2014, and December 23, 2014 monitoring events. There was no induced vacuum measured at monitoring point MP-3 during the March 26, 2013, September 19, 2013, and December 17, 2013 monitoring events.

    - Negative vacuum level was measured in monitoring point MP-4 during the September 13, 2012, December 26, 2012, and October 9, 2014 monitoring events. There was no induced vacuum measured at monitoring point MP-4 during the March 26, 2013, June 20, 2013, September 19, 2013, December 17, 2013, March 27, 2014, July 1, 2014, and December 23, 2014 monitoring events.

    - In all, 50 of the 60 recorded measurements exhibited negative vacuum levels.

Due to limited access to the monitoring point locations, monitoring points MP-3 and MP-4 could not be examined to determine the cause of the lack of induced vacuum levels. However, the changes in induced vacuum measured at these monitoring points may be due to seasonal variations and/or changes in atmospheric barometric pressure.

Vapor sample analytical results are summarized in Tables 2 and 3. In all extraction points, VOC concentrations were significantly less than levels observed during the last monitoring event of the pilot test (June 1, 2005), and exhibit asymptotic TVOC concentration curves (Figure 1). A summary of VOC analytical results is as follows:

- During this reporting period, extraction point SVE-1 had trichloroethene (TCE) concentrations ranging from not detected to 250 µg/m$^3$. Total volatile organic compounds (TVOC) concentrations for SVE-1 ranged from below the limits of detection to 400 µg/m$^3$. TCE and TVOC concentrations generally decreased from the previous sampling rounds conducted during the July 2011 through June 2012 operational period. TCE and TVOC concentrations are well below the June 2006 levels (i.e., startup of full-scale VRS operation) for all sampling events completed during this reporting period.

- During this reporting period, extraction point SVE-2 had TCE concentrations ranging from not detected to 480 µg/m$^3$. TVOC concentrations for SVE-2 ranged from below the limits of detection to 650 µg/m$^3$. TCE and TVOC concentrations decreased from the previous sampling rounds conducted during the July 2011 through June 2012 operational period for all sampling events completed during the reporting period. TCE and TVOC concentrations are well below the June 2006 levels for all sampling events completed during this reporting period.

- During this reporting period, no TCE concentrations were found above the limits of detection for extraction point SVE-3. TVOC concentrations for SVE-3 ranged from 16 to 304 µg/m$^3$. TVOC concentrations are well below the June 2006 levels for all sampling events completed during this reporting period.

- During this reporting period, effluent sample EFF-2 had TCE concentrations ranging from below the limits of detection to 590 µg/m$^3$. TVOC concentrations ranged from below the limits of detection to 668 µg/m$^3$. TCE and TVOC concentrations have decreased when compared with the previous sampling rounds conducted during the July 2011 through June 2012 operational period.

- In addition to the field and laboratory analytical results provided herein, ARCADIS calculated and is providing air modeling results for the monitoring events completed during the current reporting period. Air modeling calculations were performed using the effluent concentrations, and the NYSDEC DAR-1 Annual Guidance Concentration (AGC) model. Modeling results are provided in Tables A1 through A8. The effluent concentrations for the September 2014 and December 2014 sampling events were below the limits of detection; therefore, air modeling calculations were not performed for these monitoring events. As shown on the Tables A1 through A8, modeling results indicate that the effluent vapor stream has been below NYSDEC AGCs during the current reporting period.

**Conclusions**

Based on the results provided herein, ARCADIS concludes the following:

- The VRS operated as intended (i.e., a negative vacuum was maintained and contaminant mass was removed).

- TCE and TVOC concentrations have decreased significantly (from 2006 levels) in each of the three VRS extraction points.

- The highest VOC concentrations were observed in SVE-2 with lower concentrations present at SVE-1 and SVE-3;

- During this reporting period, effluent concentrations have been at low, asymptotic levels (with the most recent results below the limits of detection). These results indicate significant and substantial concentration decreases when compared to system startup (i.e., 2006 levels); and,

- NYSDEC DAR-1 AGC emissions calculations indicate that the effluent vapor stream has been below the NYSDEC AGC limits for the last eight monitoring events.

ARCADIS of New York, Inc. recommends the following based on the results provided herein:

- Continue to operate the VRS to maintain a negative pressure beneath the building slab, thereby mitigating the potential vapor intrusion pathway.

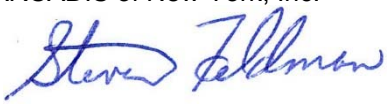
- Discontinue the quarterly collection and laboratory analysis of effluent vapor samples at EFF-2 since TVOCs have decreased to low, asymptotic concentrations, and the current benefit of the VRS is the prevention of vapor intrusion (i.e., as opposed to VOC mass reduction).

- Continue to collect quarterly induced vacuum measurements to document the effectiveness of the VRS in maintaining a negative pressure beneath the building slab.

With NYSDEC approval, we plan to proceed with this revised monitoring approach beginning with the next scheduled performance monitoring event in June 2015. Please contact Ron Stallone (516-935-1100 x223) if you have any questions or need additional information.

Sincerely,

ARCADIS of New York, Inc.



Steve Feldman
Principal Scientist

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Copies:
Mr. Ron Stallone, Spiegel Associates
Wendy Kuehner, NYSDOH
File

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Table 1. System Operational Data, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Date | SVE - 1 Extraction Well Parameters | | | | SVE - 2 Extraction Well Parameters | | | | SVE - 3 Extraction Well Parameters | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wellhead Vacuum (in.W.C.) | Air Velocity (fpm) | Air Flow Rate [2] (acfm) | PID Measured Concentration (ppmv) | Wellhead Vacuum (in.W.C.) | Air Velocity (fpm) | Air Flow Rate [2] (acfm) | PID Measured Concentration (ppmv) | Wellhead Vacuum (in.W.C.) | Air Velocity (fpm) | Air Flow Rate [2] (acfm) | PID Measured Concentration (ppmv) |
| 09/13/12 | -38.0 | 2,862 | 65.5 | 0.0 | -39.0 | 1,672 | 38.3 | 0.0 | -38.0 | 2,271 | 52.0 | 0.0 |
| 12/26/12 | -40.0 | 3,092 | 70.8 | 0.1 | -41.0 | 1,386 | 31.7 | 0.1 | -38.0 | 2,625 | 60.1 | 0.1 |
| 03/26/13 | -40.0 | 3,151 | 72.2 | 0.0 | -42.0 | 1,759 | 40.3 | 0.0 | -40.0 | 2,724 | 62.4 | 0.0 |
| 06/20/13 | -36.5 | 2,477 | 56.7 | 0.1 | -38.1 | 1,571 | 36.0 | 0.1 | -36.0 | 2,133 | 48.8 | 0.1 |
| 09/19/13 | -37.0 | 2,900 | 66.4 | 0.0 | -38.0 | 1,790 | 41.0 | 0.0 | -36.0 | 2,510 | 57.5 | 0.0 |
| 12/17/13 | -38.5 | 3,020 | 69.2 | 0.0 | -41.0 | 1,283 | 29.4 | 0.0 | -40.0 | 2,420 | 55.4 | 0.0 |
| 03/27/14 | -39.0 | 3,269 | 74.9 | 0.9 | -43.0 | 1,650 | 37.8 | 0.3 | -40.0 | 2,514 | 57.6 | 0.0 |
| 07/01/14 [4] | -38.0 | 2,840 | 65.0 | 0.0 | -39.0 | 1,810 | 41.4 | 0.0 | -36.0 | 2,485 | 56.9 | 0.0 |
| 10/09/14 [5] | -37.0 | 2,928 | 67.0 | NA[6] | -39.0 | 1,746 | 40.0 | NA[6] | -36.0 | 2,514 | 57.6 | NA[6] |
| 12/23/14 | -41.0 | 3,290 | 75.3 | NA | -42.0 | 1,419 | 32.5 | NA | -40.0 | 2,513 | 57.5 | NA |

**Notes:**

1. Data in this table corresponds to the current reporting period (July 1, 2012 to December 31, 2014).
2. The air flow rate was calculated by multiplying the measured air velocity in feet per minute by the cross sectional area of the pipe.
3. Per NYSDEC approval the vapor phase carbon treatment (GAC 500) was removed from system operation on December 3, 2009.
4. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
5. September 2014 quarterly compliance sampling event was completed on October 9, 2014.
6. PID measurements were not collected due to samples SVE-1, SVE-2, and SVE-3 being removed from system operation starting with the performance monitoring event of September 2013, as stated in the July 2011 through June 2012 System Status Report, dated November 27, 2012.

| | |
|---|---|
| acfm | actual cubic feet per minute |
| fpm | feet per minute |
| in. W.C | inches of water column |
| NA | not applicable |
| NYSDEC | New York State Department of Environmental Conservation |
| ppmv | parts per million by volume |
| -- | data not recorded |

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Table 1. System Operational Data, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Date | Blower Parameters | | GAC 500 Parameters [3] | | | | | Discharge Parameters | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Influent Vacuum (in.W.C.) | Effluent Pressure (in.W.C.) | Influent Pressure (in.W.C.) | Influent Temperature (Degrees F) | Air Velocity (fpm) | Air Flow Rate [2] (acfm) | PID Measured Concentration (ppmv) | Discharge Pressure (in.W.C.) | Discharge Temperature (Degrees F) | Air Velocity (fpm) | Air Flow Rate [2] (acfm) | PID Measured Concentration (ppmv) |
| 09/13/12 | -57.5 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 119.6 | 1,858 | 166.1 | 0.0 |
| 12/26/12 | -58.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 78.4 | 1,969 | 176.1 | 0.1 |
| 03/26/13 | -58.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 96.6 | 1,811 | 161.9 | 0.0 |
| 06/20/13 | -56.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 114.0 | 1,655 | 148.0 | 0.2 |
| 09/19/13 | -56.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 98.0 | 1,755 | 156.9 | 0.1 |
| 12/17/13 | -59.5 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 71.3 | 1,887 | 168.7 | 0.0 |
| 03/27/14 | -60.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 93.0 | 1,984 | 177.4 | -- |
| 07/01/14 [4] | -56.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 103.0 | 1,685 | 150.7 | 0.0 |
| 10/09/14 [5] | -56.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 111.3 | 1,740 | 155.6 | 0.1 |
| 12/23/14 | -60.0 | 0.0 | NA | NA | NA | NA | NA | 0.0 | 83.0 | 1,840 | 164.5 | 0.0 |

**Notes:**

1. Data in this table corresponds to the current reporting period (July 1, 2012 to December 31, 2014).
2. The air flow rate was calculated by multiplying the measured air velocity in feet per minute by the cross sectional area of the pipe.
3. Per NYSDEC approval the vapor phase carbon treatment (GAC 500) was removed from system operation on December 3, 2009.
4. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
5. September 2014 quarterly compliance sampling event was completed on October 9, 2014.
6. PID measurements were not collected due to samples SVE-1, SVE-2, and SVE-3 being removed from system operation starting with the performance monitoring event of September 2013, as stated in the July 2011 through June 2012 System Status Report, dated November 27, 2012.

| | |
|---|---|
| acfm | actual cubic feet per minute |
| fpm | feet per minute |
| in. W.C | inches of water column |
| NA | not applicable |
| NYSDEC | New York State Department of Environmental Conservation |
| ppmv | parts per million by volume |
| -- | data not recorded |

Table 1. System Operational Data, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Date | Induced Vacuum Measurements | | | | | |
|---|---|---|---|---|---|---|
| | MP-1 (in.W.C.) | MP-2 (in.W.C.) | MP-3 (in.W.C.) | MP-4 (in.W.C.) | MP-5 (in.W.C.) | MP-6 (in.W.C.) |
| 09/13/12 | -0.01 | -0.04 | -0.02 | -0.01 | -0.10 | -0.05 |
| 12/26/12 | -0.01 | -0.02 | -0.01 | -0.01 | -0.02 | -0.02 |
| 03/26/13 | -0.05 | -0.04 | 0.06 | 0.00 | -0.04 | -0.04 |
| 06/20/13 | -0.05 | -0.07 | -0.17 | 0.01 | -0.11 | -0.09 |
| 09/19/13 | -0.06 | -0.07 | 0.01 | 0.00 | -0.11 | -0.07 |
| 12/17/13 | -0.05 | -0.02 | 0.00 | 0.00 | -0.03 | -0.01 |
| 03/27/14 | -0.01 | -0.07 | -0.01 | 0.02 | -0.07 | -0.04 |
| 07/01/14 [4] | -0.03 | -0.06 | -0.03 | 0.04 | -0.06 | -0.06 |
| 10/09/14 [5] | -0.11 | -0.13 | -0.04 | -0.08 | -0.12 | -0.09 |
| 12/23/14 | -0.02 | -0.04 | -0.05 | 0.00 | -0.03 | -0.03 |

**Notes:**

1. Data in this table corresponds to the current reporting period (July 1, 2012 to December 31, 2014).
2. The air flow rate was calculated by multiplying the measured air velocity in feet per minute by the cross sectional area of the pipe.
3. Per NYSDEC approval the vapor phase carbon treatment (GAC 500) was removed from system operation on December 3, 2009.
4. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
5. September 2014 quarterly compliance sampling event was completed on October 9, 2014.
6. PID measurements were not collected due to samples SVE-1, SVE-2, and SVE-3 being removed from system operation starting with the performance monitoring event of September 2013, as stated in the July 2011 through June 2012 System Status Report, dated November 27, 2012.

| | |
|---|---|
| acfm | actual cubic feet per minute |
| fpm | feet per minute |
| in. W.C | inches of water column |
| NA | not applicable |
| NYSDEC | New York State Department of Environmental Conservation |
| ppmv | parts per million by volume |
| -- | data not recorded |

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Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 6/1/2005 | SVE-1 [3] 6/16/2006 | SVE-1 6/30/2006 | SVE-1 7/14/2006 | SVE-1 7/28/2006 | SVE-1 8/11/2006 | SVE-1 8/25/2006 | SVE-1 9/8/2006 | SVE-1 10/5/2006 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 180 | 150 J | 1,100 | 220 | 210 | 340 | 87 | 98 | 110 |
| 1,1-Dichloroethane | | ND | ND J | ND | ND | 20 | 32 | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | 200 J | 130 | ND | ND | 14 | ND | 100 | 45 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | 51 J | 160 | ND | ND | 33 | ND | ND | ND |
| cis-1,2-Dichloroethene | | 380 | 140 J | 160 | 42 | 80 | 180 | 71 | 90 | 130 |
| Cyclohexane | | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | 280 J | 410 | 61 | 70 | 100 | 44 | 52 | 67 |
| Freon 12 | | ND | ND J | ND | ND | ND | 29 | ND | ND | 25 |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 310 | 210 J | 220 | ND | 46 | 140 | ND | 60 | 130 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | 32 J | ND | ND | ND | ND | 24 | ND | ND |
| trans-1,2-Dichloroethene | | 22 | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 7900 | 5,200 J | 5,900 | 840 | 1,400 | 3,200 | 980 | 1,700 | 3,000 |
| **Total VOCs** [2] | | **8,792** | **6263 J** | **8,080** | **1,163** | **1,826** | **4,068** | **1,206** | **2,100** | **3,507** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 11/3/2006 | SVE-1 12/5/2006 | SVE-1 4/26/2007 | SVE-1 5/29/2007 | SVE-1 6/27/2007 | SVE-1 7/26/2007 | SVE-1 [4] 9/6/2007 | SVE-1 9/28/2007 | SVE-1 10/25/2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 76 | 53 | 27 | 34 | 34 | 48 | 28 | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 16 | 12 | ND | ND | 36 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 28 | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 110 | 97 | 42 | 71 | 70 | 86 | 52 | 51 | 59 |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 51 | 45 | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | 29 | 28 | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 110 | ND | ND | 38 | 51 | 68 | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | 30 | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 2,300 | 1,400 | 650 | 1,300 | 1,300 | 1,700 | 900 | 1,300 | 1,200 |
| **Total VOCs** [2] | | **2,692** | **1,635** | **719** | **1,443** | **1,491** | **1,902** | **1,038** | **1,351** | **1,259** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 [5] 12/13/2007 | SVE-1 12/27/2007 | SVE-1 [6] 2/5/2008 | SVE-1 2/26/2008 | SVE-1 [7] 4/3/2008 | SVE-1 4/30/2008 | SVE-1 5/27/2008 | SVE-1 6/26/2008 | SVE-1 7/23/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 42 | 59 | 45 | 29 | ND | 36 | 42 | 29 | 33 |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | 30 | ND | ND | 22 | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | 60 | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | 25 | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 16 | ND | 19 |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 76 | 120 | 110 | 84 | 45 | 120 | 140 | 110 | 100 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | 62 | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | 33 | 53 | 33 | 28 | ND | 35 | 43 | 40 | 36 |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | 64 | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | 34 | ND | ND | 17 | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 36 | 100 | 75 | 59 | ND | 66 | 100 | 98 | 91 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 30 | 71 | ND | 40 | 230 | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 1,200 | 2,500 | 2,000 | 1,400 | 700 | 2,000 | 2,600 | 2,200 | 1,900 |
| **Total VOCs** [2] | | **1,417** | **2,967** | **2,263** | **1,640** | **1,225** | **2,257** | **2,941** | **2,477** | **2,179** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 8/28/2008 | SVE-1 9/30/2008 | SVE-1 10/30/2008 | SVE-1 [8] 11/25/2008 | SVE-1 [9] 1/14/2009 | SVE-1 2/25/2009 | SVE-1 3/31/2009 | SVE-1 [10] 5/12/2009 | SVE-1 5/28/2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 44 | 28 | ND | -- | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | 94 | -- | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | 57 | -- | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | 94 | -- | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | 16 | -- | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | 79 | -- | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 140 | 87 | 56 | -- | 48 | 31 | 44 | 46 | 92 |
| Cyclohexane | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | 32 | -- | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Freon 12 | | 58 | 40 | 28 | -- | ND | ND | ND | ND | 29 |
| Heptane | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | 140 | -- | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | -- | ND | ND | ND | ND | 23 |
| MTBE | | ND | ND | ND | -- | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | 78 | -- | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 120 | 72 | ND | -- | 36 | ND | 38 | ND | 70 |
| Tetrahydrofuran | | ND | ND | 63 | -- | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | 58 | -- | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 2,500 | 1,600 | 840 | -- | 880 | 500 | 740 | 720 | 1,500 |
| **Total VOCs** [2] | | **2,862** | **1,827** | **1,635** | 0 | **964** | **531** | **822** | **766** | **1,714** |

See notes on last page.

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Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 6/30/2009 | SVE-1 [11] 8/3/2009 | SVE-1 8/31/2009 | SVE-1 [12] 9/30/2009 | SVE-1 12/30/2009 | SVE-1 3/25/2010 | SVE-1 6/16/2010 | SVE-1 9/28/2010 | SVE-1 12/8/2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | 74 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | 26 | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | 74 | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | 23 | 30 | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 70 | ND | ND | ND | ND | ND | ND | 31 | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | 42 | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | 36 | ND | ND | ND | ND | ND | ND | 25 | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | 180 | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | 69 | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 36 | ND | ND | ND | ND | ND | ND | 38 | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 68 | ND | ND | ND | ND | ND | ND | ND | 47 |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 1,100 | 310 | 150 | 130 | 83 | 81 | ND | 590 | 240 |
| **Total VOCs** [2] | | **1,798** | **340** | **150** | **130** | **83** | **81** | 0 | **684** | **287** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 3/22/2011 | SVE-1 6/28/2011 | SVE-1 9/29/2011 | SVE-1 12/28/2011 | SVE-1 3/14/2012 | SVE-1 6/28/2012 | SVE-1 9/13/2012 | SVE-1 12/26/2012 | SVE-1 3/26/2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | 50 | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | 69 | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | 21 | ND | ND | 17 | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | ND | 22 | ND | ND | ND | ND | ND | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | 110 | ND | 62 | ND | 70 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | 27 | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | 98 | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | 26 | ND | ND | 43 | ND | 20 | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 270 | 270 | 500 | 300 | 230 | 380 | 170 | 250 | 180 |
| **Total VOCs** [2] | | **270** | **365** | **570** | **300** | **383** | **397** | **400** | **250** | **250** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-1 [13] 6/20/2013 | SVE-1 9/19/2013 | SVE-1 12/17/2013 | SVE-1 3/27/2014 | SVE-1 7/10/2014 | SVE-1 [16] 10/9/2014 |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | -- | ND | ND | ND | ND | -- |
| 1,1-Dichloroethane | | -- | ND | ND | ND | ND | -- |
| 1,1-Dichloroethene | | -- | ND | ND | ND | ND | -- |
| 1,2,4-Trimethylbenzene | | -- | ND | ND | ND | ND | -- |
| 1,2-Dichloropropane | | -- | ND | ND | ND | ND | -- |
| 1,3,5-Trimethylbenzene | | -- | ND | ND | ND | ND | -- |
| 2,2,4-Trimethylpentane | | -- | ND | ND | ND | ND | -- |
| 2-Butanone | | -- | ND | ND | ND | ND | -- |
| 2-Propanol | | -- | ND | ND | ND | ND | -- |
| 4-Ethyltoluene | | -- | ND | ND | ND | ND | -- |
| Acetone | | -- | ND | ND | ND | ND | -- |
| Benzene | | -- | ND | ND | ND | ND | -- |
| Carbon Disulfide | | -- | ND | ND | ND | ND | -- |
| Chloroform | | -- | ND | ND | ND | ND | -- |
| cis-1,2-Dichloroethene | | -- | ND | ND | ND | ND | -- |
| Cyclohexane | | -- | ND | ND | ND | ND | -- |
| Ethanol | | -- | ND | ND | 43 | ND | -- |
| Ethyl Benzene | | -- | ND | ND | ND | ND | -- |
| Freon 113 | | -- | ND | ND | ND | ND | -- |
| Freon 12 | | -- | ND | ND | ND | ND | -- |
| Heptane | | -- | ND | ND | ND | ND | -- |
| Hexane | | -- | ND | ND | ND | ND | -- |
| m,p-Xylene | | -- | ND | ND | ND | ND | -- |
| Methylene Chloride | | -- | ND | ND | ND | ND | -- |
| MTBE | | -- | ND | ND | ND | ND | -- |
| o-Xylene | | -- | ND | ND | ND | ND | -- |
| Tetrachloroethene | | -- | ND | ND | ND | ND | -- |
| Tetrahydrofuran | | -- | ND | ND | ND | ND | -- |
| Toluene | | -- | ND | 25 | ND | ND | -- |
| trans-1,2-Dichloroethene | | -- | ND | ND | ND | ND | -- |
| Trichloroethene | | -- | ND | ND | ND | ND | -- |
| **Total VOCs** [2] | | NA | 0 | **25** | **43** | 0 | NA |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 6/1/2005 | SVE-2 [3] 6/16/2006 | SVE-2 6/30/2006 | SVE-2 7/14/2006 | SVE-2 7/28/2006 | SVE-2 8/11/2006 | SVE-2 8/25/2006 | SVE-2 9/8/2006 | SVE-2 10/5/2006 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 100 | 64 J | 52 | ND | ND | 46 | ND | 39 | 35 |
| 1,1-Dichloroethane | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 52 | 150 J | 130 | ND | ND | 27 | 12 | 120 | 41 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 690 | 320 J | 290 | 88 | 84 | 160 | 82 | 140 | 100 |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 760 | 580 J | 580 | 190 | 180 | 310 | ND | ND | 250 |
| Freon 12 | | ND | ND J | ND | ND | ND | ND | 170 | 280 | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 260 | 180 J | 190 | 46 | 39 | 140 | 45 | 120 | 130 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | 30 J | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 12,000 | 12,000 J | 16,000 | 3,300 | 3,200 | 8,100 | 3,400 | 6,700 | 5,500 |
| **Total VOCs** [2] | | **13,862** | **13,324 J** | **17,242** | **3,624** | **3,503** | **8,783** | **3,709** | **7,399** | **6,056** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 11/3/2006 | SVE-2 12/5/2006 | SVE-2 4/26/2007 | SVE-2 5/29/2007 | SVE-2 6/27/2007 | SVE-2 7/26/2007 | SVE-2 [4] 9/6/2007 | SVE-2 9/28/2007 | SVE-2 10/25/2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 36 | ND | ND | 29 | ND | 40 | 29 | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 16 | 13 | ND | ND | 170 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 89 | 65 | 38 | 300 | ND | 84 | 63 | ND | ND |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 240 | 210 | 110 | 190 | ND | 210 | 170 | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | 50 | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 130 | 53 | ND | 110 | ND | 130 | 58 | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | 21 | ND | ND | 95 | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 4,200 | 2,300 | 1,400 | 4,300 | 240 | 3,700 | 2,600 | 3,400 | 2,100 |
| **Total VOCs** [2] | | **4,711** | **2,662** | **1,548** | **4,929** | **555** | **4,164** | **2,920** | **3,400** | **2,100** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 [5] 12/13/2007 | SVE-2 12/27/2007 | SVE-2 [6] 2/5/2008 | SVE-2 2/26/2008 | SVE-2 [7] 4/3/2008 | SVE-2 4/30/2008 | SVE-2 5/27/2008 | SVE-2 6/26/2008 | SVE-2 7/23/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | 29 | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | 18 | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | 51 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | 60 | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | 24 | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 18 | ND | 20 |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 39 | 54 | 43 | 38 | ND | 53 | 60 | 51 | 48 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | 59 | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 76 | 92 | 94 | 97 | ND | 100 | 100 | 73 | 80 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | 82 | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | 18 | 28 | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 73 | 210 | 120 | 110 | ND | 89 | 110 | 110 | 100 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | 24 | ND | 210 | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 1,600 | 3,400 | 2,100 | 2,000 | 780 | 2,500 | 3,300 | 2,600 | 2,400 |
| **Total VOCs** [2] | | **1,788** | **3,785** | **2,381** | **2,245** | **1,302** | **2,770** | **3,588** | **2,834** | **2,648** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 8/28/2008 | SVE-2 9/30/2008 | SVE-2 10/30/2008 | SVE-2 11/25/2008 | SVE-2 [9] 1/14/2009 | SVE-2 2/25/2009 | SVE-2 3/31/2009 | SVE-2 [10] 5/12/2009 | SVE-2 5/28/2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | 66 | ND | 68 | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 63 | 42 | ND | ND | 25 | 21 | 32 | 35 | 59 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 95 | 63 | ND | ND | ND | ND | ND | ND | 59 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | 27 | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | 23 | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 130 | 93 | ND | 45 | 66 | 51 | 58 | 59 | 100 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | 370 | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 2,900 | 1,800 | 310 | 840 | 1,200 | 1,200 | 1,600 | 1,800 | 2,700 |
| **Total VOCs** [2] | | **3,188** | **2,064** | **730** | **953** | **1,291** | **1,272** | **1,690** | **1,894** | **2,918** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: | SVE-2 | SVE-2 [11] | SVE-2 | SVE-2 [12] | SVE-2 | SVE-2 | SVE-2 | SVE-2 | SVE-2 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Date: | 6/30/2009 | 8/3/2009 | 8/31/2009 | 9/30/2009 | 12/30/2009 | 3/25/2010 | 6/16/2010 | 9/28/2010 | 12/8/2010 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | 32 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | 32 | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | 22 | 28 | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 41 | ND | ND | ND | ND | ND | ND | ND | 20 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | 330 | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 68 | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | 19 |
| m,p-Xylene | | 61 | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | 23 | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 49 | ND | ND | ND | ND | ND | ND | 64 | 66 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 20 | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 1,700 | 480 | 240 | 200 | 160 | 160 | 200 | 840 | 940 |
| **Total VOCs** [2] | | **2,048** | **508** | **240** | **200** | **160** | **160** | **200** | **1,234** | **1,045** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 3/22/2011 | SVE-2 6/28/2011 | SVE-2 9/29/2011 | SVE-2 12/28/2011 | SVE-2 3/14/2012 | SVE-2 6/28/2012 | SVE-2 9/13/2012 | SVE-2 12/26/2012 | SVE-2 3/26/2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | 18 | ND | ND | ND | 16 | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | 460 J | ND | ND | ND | 52 | ND | 68 | ND | 70 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | 95 | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | 48 | 48 | 37 | ND | ND | 48 | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | 47 | 36 | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | ND | 650 | 760 | 520 | 650 | 750 | 440 | 480 | 370 |
| **Total VOCs** [2] | | **460 J** | **668** | **808** | **568** | **739** | **766** | **650** | **564** | **440** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-2 6/20/2013 | SVE-2 9/19/2013 | SVE-2 12/17/2013 | SVE-2 3/27/2014 | SVE-2 7/10/2014 | SVE-2 [16] 10/9/2014 |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | -- |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | -- |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | -- |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | -- |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | -- |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | -- |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | -- |
| 2-Butanone | | ND | ND | ND | ND | ND | -- |
| 2-Propanol | | ND | ND | ND | ND | ND | -- |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | -- |
| Acetone | | ND | ND | ND | ND | ND | -- |
| Benzene | | ND | ND | ND | ND | ND | -- |
| Carbon Disulfide | | ND | ND | ND | ND | ND | -- |
| Chloroform | | ND | ND | ND | ND | ND | -- |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND | ND | -- |
| Cyclohexane | | ND | ND | ND | ND | ND | -- |
| Ethanol | | ND | ND | 72 | 60 | 100 | -- |
| Ethyl Benzene | | ND | ND | ND | ND | ND | -- |
| Freon 113 | | ND | ND | ND | ND | ND | -- |
| Freon 12 | | ND | ND | ND | ND | ND | -- |
| Heptane | | ND | ND | ND | ND | ND | -- |
| Hexane | | ND | ND | ND | ND | ND | -- |
| m,p-Xylene | | ND | ND | ND | ND | ND | -- |
| Methylene Chloride | | 21 | ND | ND | ND | ND | -- |
| MTBE | | ND | ND | ND | ND | ND | -- |
| o-Xylene | | ND | ND | ND | ND | ND | -- |
| Tetrachloroethene | | ND | ND | ND | ND | ND | -- |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | -- |
| Toluene | | ND | ND | 23 | ND | ND | -- |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | -- |
| Trichloroethene | | 100 | ND | ND | ND | ND | -- |
| **Total VOCs** [2] | | **121** | 0 | **95** | **60** | **100** | NA |

See notes on last page.

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Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 6/1/2005 | SVE-3 [3] 6/16/2006 | SVE-3 6/30/2006 | SVE-3 7/14/2006 | SVE-3 7/28/2006 | SVE-3 8/11/2006 | SVE-3 8/25/2006 | SVE-3 9/8/2006 | SVE-3 10/5/2006 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | 16 | ND J | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 46 | 160 J | 150 | ND | 26 | ND | ND | 72 | 32 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 390 | 27 J | 150 | 71 | 38 | 60 | 76 | 140 | 170 |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 420 | 130 J | 320 | 110 | 73 | 79 | 93 | 110 | 91 |
| Freon 12 | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 74 | ND J | 49 | ND | ND | ND | ND | 34 | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND J | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 1,900 | 600 J | 1,000 | 290 | 180 | 310 | 270 | 480 | 450 |
| **Total VOCs** [2] | | **2,846** | **917 J** | **1,669** | **471** | **317** | **449** | **439** | **836** | **743** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 11/3/2006 | SVE-3 12/5/2006 | SVE-3 4/26/2007 | SVE-3 5/29/2007 | SVE-3 6/27/2007 | SVE-3 7/26/2007 | SVE-3 [4] 9/6/2007 | SVE-3 9/28/2007 | SVE-3 10/25/2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 14 | 16 | ND | ND | 37 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 240 | 240 | 180 | 300 | 300 | 420 | 230 | 250 | 270 |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 110 | 100 | 70 | 110 | 120 | 160 | 110 | 100 | 92 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | 37 | ND | ND | 34 | 42 | 69 | ND | 55 | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 480 | 350 | 210 | 340 | 340 | 460 | 310 | 340 | 260 |
| **Total VOCs** [2] | | **881** | **706** | **460** | **784** | **839** | **1,109** | **650** | **745** | **622** |

See notes on last page.

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Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 [5] 12/13/2007 | SVE-3 12/27/2007 | SVE-3 [6] 2/5/2008 | SVE-3 2/26/2008 | SVE-3 [7] 4/3/2008 | SVE-3 4/30/2008 | SVE-3 5/27/2008 | SVE-3 6/26/2008 | SVE-3 7/23/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | 38 |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | 49 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 16 | ND | 26 |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 140 | 170 | 110 | 92 | 73 | 93 | 140 | 130 | 140 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | 44 | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 44 | 48 | 44 | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | 23 | ND | ND | ND | 41 | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | 19 | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | 39 | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | 27 | 96 | ND | ND | ND | 96 |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 130 | 170 | 92 | 71 | 55 | 88 | 110 | 100 | 120 |
| **Total VOCs** [2] | | **356** | **427** | **246** | **190** | **358** | **181** | **266** | **230** | **420** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 8/28/2008 | SVE-3 9/30/2008 | SVE-3 10/30/2008 | SVE-3 11/25/2008 | SVE-3 [9] 1/14/2009 | SVE-3 2/25/2009 | SVE-3 3/31/2009 | SVE-3 [10] 5/12/2009 | SVE-3 5/28/2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | 21 |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | 90 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | 130 J |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 330 | 300 | 110 | 190 | 150 | 93 | 110 | 110 | 78 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | 46 |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | 49 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 50 | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | 75 |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | 24 |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | 23 |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | 210 | ND | ND | ND | ND | ND | 120 |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 160 | 160 | 100 | 71 | 100 | 39 | 63 | 56 | 35 |
| **Total VOCs** [2] | | **540** | **460** | **420** | **261** | **250** | **132** | **173** | **166** | **691 J** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 6/30/2009 | SVE-3 [11] 8/3/2009 | SVE-3 8/31/2009 | SVE-3 [12] 9/30/2009 | SVE-3 12/30/2009 | SVE-3 3/25/2010 | SVE-3 6/16/2010 | SVE-3 9/28/2010 | SVE-3 12/8/2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | 26 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | 29 | 37 | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 140 | 40 | ND | 28 | 27 | 21 | ND | 210 | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | 220 | 74 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | 20 |
| m,p-Xylene | | 52 | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 19 | ND | ND | ND | ND | ND | ND | ND | 29 |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 76 | 28 | ND | ND | ND | ND | ND | 93 | ND |
| **Total VOCs** [2] | | **342** | **105** | 0 | **28** | **27** | **21** | **ND** | **523** | **123** |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 3/22/2011 | SVE-3 6/28/2011 | SVE-3 9/29/2011 | SVE-3 12/28/2011 | SVE-3 3/14/2012 | SVE-3 6/28/2012 | SVE-3 9/13/2012 | SVE-3 [14] 12/26/2012 | SVE-3 3/26/2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Carbon Disulfide | | ND | 22 | 22 | ND | ND | 18 | 16 | -- | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| cis-1,2-Dichloroethene | | ND | 100 | 220 | 160 | 24 | 110 | ND | -- | 68 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Ethanol | | ND | 180 | ND | 760 | ND | 40 | ND | -- | 69 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Toluene | | ND | 35 | ND | ND | ND | ND | ND | -- | ND |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | -- | ND |
| Trichloroethene | | ND | 34 | 86 | 44 | ND | 44 | ND | -- | ND |
| **Total VOCs** [2] | | **ND** | **371** | **328** | **964** | **24** | **212** | **16** | NA | **137** |

See notes on last page.

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Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | SVE-3 [13] 6/20/2013 | SVE-3 [15] 9/19/2013 | SVE-3 12/17/2013 | SVE-3 3/27/2014 | SVE-3 7/10/2014 | SVE-3 [16] 10/9/2014 |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | -- | -- | ND | ND | ND | -- |
| 1,1-Dichloroethane | | -- | -- | ND | ND | ND | -- |
| 1,1-Dichloroethene | | -- | -- | ND | ND | ND | -- |
| 1,2,4-Trimethylbenzene | | -- | -- | ND | ND | ND | -- |
| 1,2-Dichloropropane | | -- | -- | ND | ND | ND | -- |
| 1,3,5-Trimethylbenzene | | -- | -- | ND | ND | ND | -- |
| 2,2,4-Trimethylpentane | | -- | -- | ND | ND | ND | -- |
| 2-Butanone | | -- | -- | ND | ND | ND | -- |
| 2-Propanol | | -- | -- | ND | ND | ND | -- |
| 4-Ethyltoluene | | -- | -- | ND | ND | ND | -- |
| Acetone | | -- | -- | ND | 58 | ND | -- |
| Benzene | | -- | -- | ND | ND | ND | -- |
| Carbon Disulfide | | -- | -- | ND | ND | ND | -- |
| Chloroform | | -- | -- | ND | ND | ND | -- |
| cis-1,2-Dichloroethene | | -- | -- | ND | ND | ND | -- |
| Cyclohexane | | -- | -- | ND | ND | ND | -- |
| Ethanol | | -- | -- | 120 | 190 | ND | -- |
| Ethyl Benzene | | -- | -- | ND | ND | ND | -- |
| Freon 113 | | -- | -- | ND | ND | ND | -- |
| Freon 12 | | -- | -- | ND | ND | ND | -- |
| Heptane | | -- | -- | ND | ND | ND | -- |
| Hexane | | -- | -- | ND | ND | ND | -- |
| m,p-Xylene | | -- | -- | ND | 28 | ND | -- |
| Methylene Chloride | | -- | -- | 20 | ND | ND | -- |
| MTBE | | -- | -- | ND | ND | ND | -- |
| o-Xylene | | -- | -- | ND | ND | ND | -- |
| Tetrachloroethene | | -- | -- | ND | ND | ND | -- |
| Tetrahydrofuran | | -- | -- | ND | ND | ND | -- |
| Toluene | | -- | -- | 57 | 28 | ND | -- |
| trans-1,2-Dichloroethene | | -- | -- | ND | ND | ND | -- |
| Trichloroethene | | -- | -- | ND | ND | ND | -- |
| **Total VOCs** [2] | | NA | NA | **197** | **304** | 0 | NA |

See notes on last page.

Table 2. Summary of Extraction Well Vapor Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

**Notes:**

1. Samples collected by ARCADIS personnel on the dates shown and submitted to Air Toxics Laboratories in Folsom, California, for VOC analyses using Direct Inject Method TO-14.
2. "Total VOCs" represents the sum of individual concentrations of compounds listed in this table.
3. Due to laboratory error, samples SVE-1, SVE-2, and SVE-3 were analyzed outside of the recommended hold time. Although subsequent laboratory testing indicating the results are representative, these results are nonetheless considered estimated, and are noted with a J qualifier.
4. The August 2007 monthly compliance sampling event was completed on September 6, 2007.
5. Sample SVE-1 collected on November 29, 2007 arrived at the laboratory flat. All monthly compliance samples were re-collected on December 13, 2007.
6. Samples collected on January 31, 2008 were delivered to the laboratory outside of the recommended holding time. January monthly compliance sampling was re-conducted on February 5, 2008.
7. Sample SVE-2 collected on March 26, 2008 arrived at the laboratory flat. All monthly compliance samples were re-collected on April 3, 2008.
8. Sample SVE-1 was not collected during the November 2008 operational period due to a lack of a sufficient quantity of sample bags.
9. Samples were not collected during the December 2008 operational period as a result of the system being intermittently offline due to water accumulation in the system knock-out tank.
10. April 2009 monthly compliance sampling was completed on May 12, 2009.
11. July 2009 monthly compliance sampling was completed on August 3, 2009.
12. With prior NYSDEC approval, the frequency of compliance monitoring was decreased from monthly to quarterly beginning with the fourth quarter 2009.
13. Samples SVE-1 and SVE-3 collected during the June 2013 operational period arrived at the laboratory flat.
14. Sample SVE-3 collected during the December 2012 operational period arrived at the laboratory flat.
15. Sample SVE-3 collected during the September 2013 operational period arrived at the laboratory flat.
16. Samples SVE-1, SVE-2, and SVE-3 were removed from system operation starting with the performance monitoring event of September 2013, as stated in the July 2011 through June 2012 System Status Report, dated November 27, 2012.

| | |
|---|---|
| J | estimated value |
| LQL | laboratory quantification limits |
| NA | not applicable |
| ND | Analyte not detected at, or above its laboratory quantification limit. |
| NYSDEC | New York State Department of Environmental Conservation |
| $ug/m^3$ | micrograms per cubic meter |
| VOC | volatile organic compound |
| -- | not analyzed |

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: | EFF-1 | EFF-1 | EFF-1 | EFF-1 | EFF-1 | EFF-1 | EFF-1 | EFF-1 | EFF-1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Date: | 6/30/2006 | 7/28/2006 | 8/11/2006 | 8/25/2006 | 9/8/2006 | 10/5/2006 | 11/3/2006 | 12/5/2006 | 4/26/2007 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | 28 | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 170 | 58 | 27 | ND | 70 | 46 | 12 | 20 | 61 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | 18 | ND | ND | ND | ND | ND | ND | ND | 54 |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | 21 | 79 | 110 | 140 | 140 | 98 | 93 | 68 |
| Cyclohexane | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | 49 | 72 | 61 | 64 | 74 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 140 | 54 | ND | ND | ND | 120 | 82 | 160 | 200 |
| **Total VOCs** [2] | | **328** | **133** | **106** | **110** | **259** | **378** | **281** | **337** | **457** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-1 5/29/2007 | EFF-1 6/27/2007 | EFF-1 7/26/2007 | EFF-1 [3] 9/6/2007 | EFF-1 9/28/2007 | EFF-1 10/25/2007 | EFF-1 [4] 12/13/2007 | EFF-1 12/27/2007 | EFF-1 [5] 2/5/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | 120 | 74 | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | 17 | ND |
| 2-Propanol | | 39 | 81 | ND | ND | ND | ND | ND | ND | 64 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 84 | 26 | 440 | 220 | 210 | 160 | 130 | 96 | 92 |
| Cyclohexane | | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | 38 | 42 |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | 340 | 220 | 160 | 97 | 53 | ND | 49 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | 18 | 85 | ND | ND | ND | ND | ND | 32 | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 77 | 60 | ND | ND | ND | ND | ND | 63 | 84 |
| Trichloroethene | | 390 | 130 | 2,800 | 2,100 | 2,600 | 1,100 | 700 | 680 | 590 |
| **Total VOCs** [2] | | **608** | **382** | **3,700** | **2,614** | **2,970** | **1,357** | **883** | **926** | **921** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-1 2/26/2008 | EFF-1 [6] 4/3/2008 | EFF-1 4/30/2008 | EFF-1 5/27/2008 | EFF-1 6/26/2008 | EFF-1 7/23/2008 | EFF-1 8/28/2008 | EFF-1 9/30/2008 | EFF-1 10/30/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | 30 | 58 | 36 | 32 | 39 | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | 80 |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | 83 | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | 45 |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | 66 |
| 2-Butanone | | ND | ND | ND | ND | ND | 21 | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | 52 | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | 60 |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | 21 | ND | 22 | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 120 | 120 | 97 | 140 | 96 | 81 | 170 | 140 | 45 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | 53 | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | 23 |
| Freon 113 | | 60 | 58 | 76 | 87 | 76 | 55 | 65 | 42 | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | 110 |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | 60 |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | 50 |
| Toluene | | 22 | ND | ND | ND | ND | 210 | ND | ND | 45 |
| Trichloroethene | | 820 | 820 | 1,200 | 2,500 | 2,300 | 1900 | 2,900 | 2,000 | 350 |
| **Total VOCs** [2] | | **1,022** | **998** | **1,456** | **2,858** | **2,508** | **2,404** | **3,174** | **2,182** | **934** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: | EFF-1 | EFF-1 [7] | EFF-1 | EFF-1 | EFF-1 [8] | EFF-1 | EFF-1 | EFF-1 [9] | EFF-1 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Date: | 11/25/2008 | 1/14/2009 | 2/25/2009 | 3/31/2009 | 5/12/2009 | 5/28/2009 | 6/30/2009 | 8/3/2009 | 8/31/2009 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | 33 | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 21 | 19 | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | 83 | 25 | 62 | 79 | 140 | 120 | 24 | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | 53 | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | 25 | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 56 | 490 | 330 | 580 | 680 | 1,600 | 2,300 | 520 | 260 |
| **Total VOCs** [2] | | **56** | **573** | **355** | **642** | **759** | **1,765** | **2,527** | **563** | **260** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: | EFF-1 [10] | EFF-1 [10] |
|---|---|---|---|
| | Date: | 9/30/2009 | -- |
| 1,1,1-Trichloroethane | | ND | -- |
| 1,1-Dichloroethane | | ND | -- |
| 1,1-Dichloroethene | | ND | -- |
| 1,2,4-Trimethylbenzene | | ND | -- |
| 1,2-Dichloropropane | | ND | -- |
| 1,3,5-Trimethylbenzene | | ND | -- |
| 2,2,4-Trimethylpentane | | ND | -- |
| 2-Butanone | | ND | -- |
| 2-Propanol | | ND | -- |
| 4-Ethyltoluene | | ND | -- |
| Acetone | | ND | -- |
| Benzene | | ND | -- |
| Carbon Disulfide | | ND | -- |
| Chloroform | | ND | -- |
| cis-1,2-Dichloroethene | | ND | -- |
| Cyclohexane | | ND | |
| Ethanol | | ND | -- |
| Ethyl Benzene | | ND | -- |
| Freon 113 | | ND | -- |
| Freon 12 | | ND | -- |
| Heptane | | ND | -- |
| Hexane | | ND | -- |
| m,p-Xylene | | ND | -- |
| Methylene Chloride | | ND | -- |
| MTBE | | ND | -- |
| o-Xylene | | ND | -- |
| Propylbenzene | | ND | -- |
| Tetrachloroethene | | ND | -- |
| Tetrahydrofuran | | ND | -- |
| Toluene | | ND | -- |
| Trichloroethene | | 150 | -- |
| **Total VOCs** [2] | | **150** | NA |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 6/30/2006 | EFF-2 7/28/2006 | EFF-2 8/11/2006 | EFF-2 8/25/2006 | EFF-2 9/8/2006 | EFF-2 10/5/2006 | EFF-2 11/3/2006 | EFF-2 12/5/2006 | EFF-2 4/26/2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | 29 | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 51 | 32 | 29 | 13 | 140 | 65 | 34 | 21 | 52 |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | 22 | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | 24 | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | 53 | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 48 | ND | ND | ND | ND | ND | ND | 19 | ND |
| Trichloroethene | | 340 | 51 | ND | ND | ND | 29 | ND | 94 | ND |
| **Total VOCs** [2] | | **439** | **189** | **29** | **13** | **140** | **94** | **34** | **156** | **52** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 5/29/2007 | EFF-2 6/27/2007 | EFF-2 7/26/2007 | EFF-2 [3] 9/6/2007 | EFF-2 9/28/2007 | EFF-2 10/25/2007 | EFF-2 [4] 12/13/2007 | EFF-2 12/27/2007 | EFF-2 [5] 2/5/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | 55 | 63 | ND | 60 | 55 | 59 |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | 38 | ND | ND | 75 | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 310 | 360 | 540 | 320 | 270 | 190 | 140 | 130 | 150 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | 110 | 280 | 280 | 240 | 210 | 110 | 76 | 110 |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | 33 | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | 130 | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | ND | ND | ND | ND | 34 | 110 | 150 | 190 | 270 |
| **Total VOCs** [2] | | **310** | **508** | **820** | **655** | **682** | **510** | **460** | **614** | **589** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 2/26/2008 | EFF-2 [6] 4/3/2008 | EFF-2 4/30/2008 | EFF-2 5/27/2008 | EFF-2 6/26/2008 | EFF-2 7/23/2008 | EFF-2 8/28/2008 | EFF-2 9/30/2008 | EFF-2 10/30/2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | 45 | 47 | 48 | 74 | 48 | 47 | 74 | 45 | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | 65 |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | 41 | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | 38 |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | 53 |
| 2-Butanone | | ND | ND | ND | ND | ND | 18 | ND | ND | ND |
| 2-Propanol | | 59 | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | 50 |
| Acetone | | ND | ND | ND | ND | ND | 54 | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | 18 | 16 | 26 | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 140 | 140 | 150 | 160 | 120 | 93 | 150 | 110 | 32 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | 57 | 70 | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | 99 | 71 | 100 | 98 | 110 | 96 | 120 | 49 | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | 95 |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | 51 |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | 39 |
| Toluene | | 32 | ND | ND | ND | ND | 110 | ND | ND | 140 |
| Trichloroethene | | 260 | 330 | 570 | 1,000 | 1,000 | 1,300 | 2,400 | 1,900 | 380 |
| **Total VOCs** [2] | | **635** | **645** | **938** | **1,350** | **1,294** | **1,785** | **2,744** | **2,104** | **943** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: | EFF-2 | EFF-2 [7] | EFF-2 | EFF-2 | EFF-2 [8] | EFF-2 | EFF-2 | EFF-2 [9] | EFF-2 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Date: | 11/25/2008 | 1/14/2009 | 2/25/2009 | 3/31/2009 | 5/12/2009 | 5/28/2009 | 6/30/2009 | 8/3/2009 | 8/31/2009 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | 30 | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | 20 | 30 | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 35 | 73 | 68 | 92 | 66 | 160 | 120 | 29 | ND |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | 53 | 54 | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | 21 | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 32 | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 420 | 700 | 510 | 820 | 740 | 1,700 | 2,500 | 590 | 300 |
| **Total VOCs** [2] | | **487** | **773** | **578** | **912** | **806** | **1,934** | **2,724** | **649** | **300** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 [10] 9/30/2009 | EFF-2 12/30/2009 | EFF-2 3/25/2010 | EFF-2 6/16/2010 | EFF-2 9/28/2010 | EFF-2 12/8/2010 | EFF-2 3/22/2011 | EFF-2 6/28/2011 | EFF-2 9/29/2011 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND | ND | ND | ND | 17 | 17 |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND | 110 | 100 | 63 | ND | 110 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | ND | ND | ND | ND | 64 | ND | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | 43 | ND | ND | ND | 35 |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 170 | 81 | 68 | 88 | 580 | 460 | 350 | ND | 520 |
| **Total VOCs** [2] | | **170** | **81** | **68** | **88** | **733** | **624** | **413** | **17** | **682** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 12/28/2011 | EFF-2 3/14/2012 | EFF-2 6/28/2012 | EFF-2 9/13/2012 | EFF-2 12/26/2012 | EFF-2 3/26/2013 | EFF-2 6/20/2013 | EFF-2 9/19/2013 | EFF-2 12/17/2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | 140 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | 95 | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Propanol | | 75 | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | | 200 | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | | 47 J | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | 19 | 18 | ND | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 49 | 50 | 56 | 60 | 69 | 49 | 28 | 65 | 26 |
| Cyclohexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethanol | | ND | 93 | ND | ND | ND | 57 | ND | ND | 76 |
| Ethyl Benzene | | 50 | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m,p-Xylene | | 180 | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | | 68 | ND | ND | ND | ND | ND | ND | ND | ND |
| Propylbenzene | | 35 | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 33 | ND | ND | ND | ND | ND | 22 | ND | 26 |
| Trichloroethene | | 190 | 290 | 390 | 590 | 240 | 230 | 160 | 180 | 100 |
| **Total VOCs** [2] | | **1,162 J** | **433** | **465** | **668** | **309** | **336** | **210** | **245** | **228** |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

| Constituents (units in ug/m$^3$) | Sample ID: / Date: | EFF-2 3/27/2014 | EFF-2 7/10/2014 | EFF-2 10/9/2014 | EFF-2 12/23/2014 |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | ND | ND | ND | ND |
| 1,1-Dichloroethane | | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND |
| 1,2-Dichloropropane | | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | | ND | ND | ND | ND |
| 2-Butanone | | ND | ND | ND | ND |
| 2-Propanol | | ND | ND | ND | ND |
| 4-Ethyltoluene | | ND | ND | ND | ND |
| Acetone | | 48 | ND | ND | ND |
| Benzene | | ND | ND | ND | ND |
| Carbon Disulfide | | ND | ND | ND | ND |
| Chloroform | | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND |
| Cyclohexane | | ND | ND | ND | ND |
| Ethanol | | 170 | 120 | ND | ND |
| Ethyl Benzene | | ND | ND | ND | ND |
| Freon 113 | | ND | ND | ND | ND |
| Freon 12 | | ND | ND | ND | ND |
| Heptane | | ND | ND | ND | ND |
| Hexane | | ND | ND | ND | ND |
| m,p-Xylene | | 25 | ND | ND | ND |
| Methylene Chloride | | ND | ND | ND | ND |
| MTBE | | ND | ND | ND | ND |
| o-Xylene | | ND | ND | ND | ND |
| Propylbenzene | | ND | ND | ND | ND |
| Tetrachloroethene | | ND | ND | ND | ND |
| Tetrahydrofuran | | ND | ND | ND | ND |
| Toluene | | 27 | ND | ND | ND |
| Trichloroethene | | 53 | 140 | ND | ND |
| **Total VOCs** [2] | | **323** | **260** | 0 | 0 |

See notes on last page.

Table 3. Summary of Carbon Effluent Sample Analytical Results, Vapor Recovery System, United Stellar Industries, Plainview, New York.[1]

**Notes:**

1. Samples collected by ARCADIS personnel on the dates shown and submitted to Air Toxics Laboratories in Folsom, CA for VOC analyses using Direct Inject Method TO-14.
2. "Total VOCs" represents the sum of individual concentrations of compounds listed in this table.
3. The August 2007 monthly compliance sampling event was completed on September 6, 2007.
4. Sample EFF-1 collected on November 29, 2007 arrived at the laboratory flat. All monthly compliance samples were re-collected on December 13, 2007.
5. Samples collected on January 31, 2008 were delivered to the laboratory outside of the recommended holding time. January 2008 monthly compliance sampling was re-conducted on February 5, 2008.
6. Sample SVE-2 collected on March 26, 2008 arrived at the laboratory flat. All monthly compliance samples were re-collectedo n April 3, 2008.
7. Samples were not collected during the December 2008 operational period as a result of the system being intermittently offline due to water accumulation in the system knock-out tank.
8. The April 2009 sampling event was completed on May 12, 2009.
9. The July 2009 sampling event was completed on August 3, 2009.
10. With prior NYSDEC approval, carbon treatment was removed from system operation on December 3, 2009 therefore, sample location EFF-1 was subsequently removed from system operation.
11. With prior NYSDEC approval, the frequency of compliance monitoring was decreased from monthly to quarterly beginning with the fourth quarter 2009.

| | |
|---|---|
| J | estimated value |
| NA | not applicable |
| ND | Analyte not detected at, or above its laboratory quantification limit. |
| NYSDEC | New York State Department of Environmental Conservation |
| VOC | volatile organic compound |
| $ug/m^3$ | micrograms per cubic meter |
| -- | not analyzed |

**Figure 1. Extaction Wells And System Effluent TVOCs Concentrations Through December 2014**
**Vapor Recovery System,**
**United Stellar Industries, Plainview, New York.**

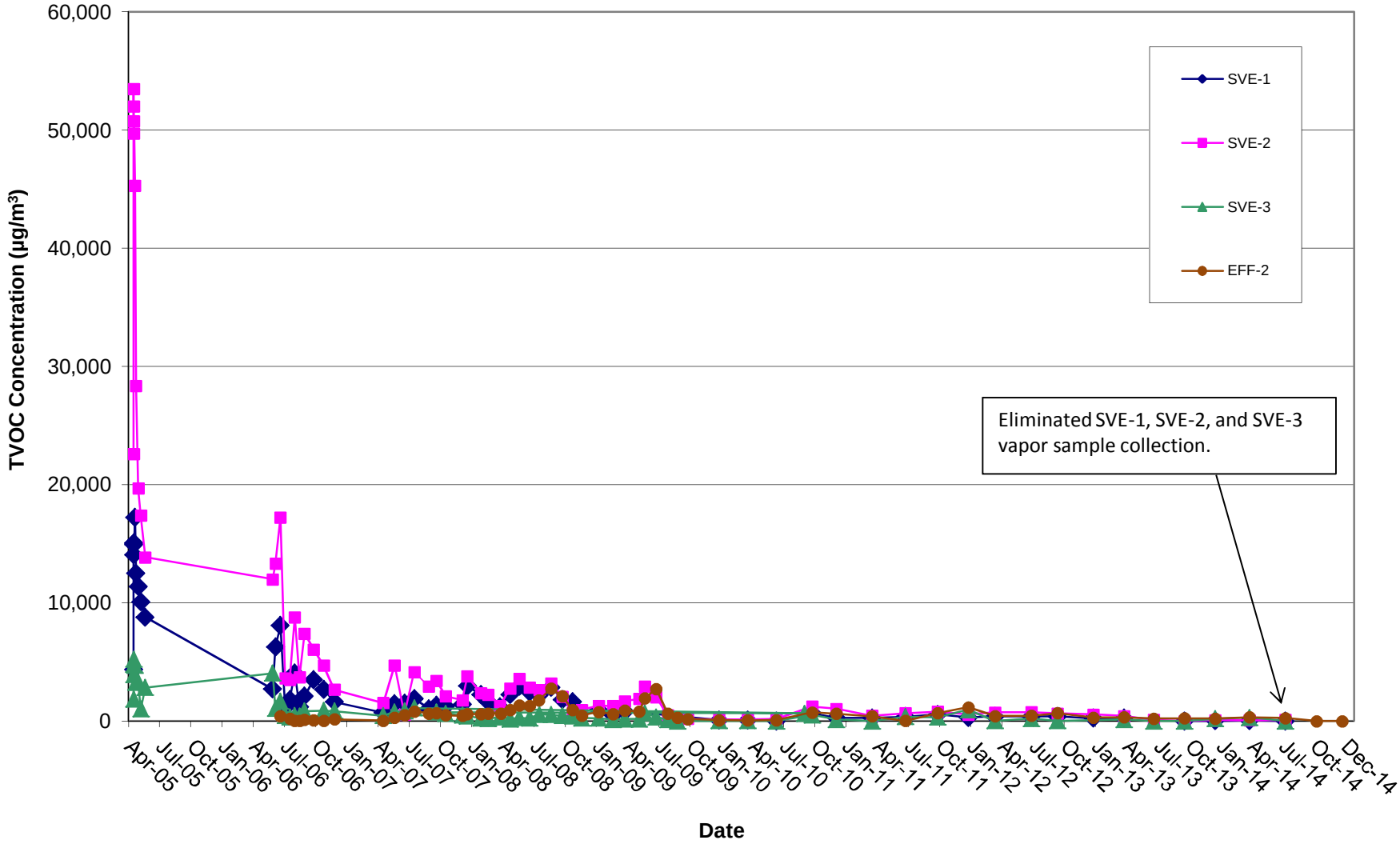

Table A1. NYSDEC DAR-1 September 13, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 166.1 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 65.5 | 0.42 |
| SVE-2 Measured Flowrate (ACFM) = | 38.3 | 0.25 |
| SVE-3 Measured Flowrate (ACFM) = | 52.0 | 0.33 |
| Sum of Individual Flows (ACFM) = | 155.8 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 | | |
| 2-Propanol | 50 | 0 | 0 | 21 | 0 |
| Carbon Disulfide | 0 | 0 | 16 | 5 | 18 |
| cis-1,2-Dichloroethene | 0 | 0 | 0 | 0 | 60 |
| Ethanol | 62 | 68 | 0 | 43 | 0 |
| Methylene Chloride | 98 | 95 | 0 | 65 | 0 |
| Toluene | 20 | 47 | 0 | 20 | 0 |
| Trichloroethene | 170 | 440 | 0 | 180 | 590 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.

Table A1. NYSDEC DAR-1 September 13, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

| Parameters for 09/13/2012 Sampling Event | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 579 | $^{o}$R |
| Ambient Temperature [2] | Ta | 527 | $^{o}$R |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 31.0 | fps |
| Exit Flow | Q | 166 | acfm |
| Exit Flow | Q | 151 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}$R: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A1. NYSDEC DAR-1 September 13, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 09/13/2012 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual %** |
|---|---|---|---|---|---|---|
| 2-Propanol | 7,000 | 312,683.23 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Carbon Disulfide | 700 | 31,268.32 | 18.00 | 1.02E-05 | 0.08938 | **0.00** |
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 60.00 | 3.40E-05 | 0.29794 | **0.01** |
| Ethanol | 45,000 | 2,010,106.50 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 590.00 | 3.34E-04 | 2.92979 | **32.79** |

Calculation of AGC Based on Influent Results From 09/13/2012 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual %** |
|---|---|---|---|---|---|---|
| 2-Propanol | 7,000 | 312,683.23 | 21.03 | 1.19E-05 | 0.10442 | **0.00** |
| Carbon Disulfide | 700 | 31,268.32 | 5.34 | 3.03E-06 | 0.02652 | **0.00** |
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Ethanol | 45,000 | 2,010,106.50 | 42.78 | 2.43E-05 | 0.21245 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 64.56 | 3.66E-05 | 0.32058 | **0.01** |
| Toluene | 5,000 | 223,345.17 | 19.96 | 1.13E-05 | 0.09911 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 179.61 | 1.02E-04 | 0.89188 | **9.98** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

ARCADIS

Table A2. NYSDEC DAR-1 December 26, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 176.1 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 70.8 | 0.44 |
| SVE-2 Measured Flowrate (ACFM) = | 31.7 | 0.20 |
| SVE-3 Measured Flowrate (ACFM) = | 60.1 | 0.37 |
| Sum of Individual Flows (ACFM) = | 162.6 | |

| | Lab Data ($ug/m^3$) | | | | |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 [2] | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
| cis-1,2-Dichloroethene | 0 | 0 | -- | 0 | 69 |
| Tetrachloroethene | 0 | 48 | -- | 9 | 0 |
| Toluene | 0 | 36 | -- | 7 | 0 |
| Trichloroethene | 250 | 480 | -- | 202 | 240 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow.
2. Sample SVE-3 collected on December 26, 2012 arrived at the laboratory flat.

-- not analyzed

Table A2. NYSDEC DAR-1 December 26, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 12/26/2012 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 538 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 501 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 32.8 | fps |
| Exit Flow | Q | 176 | acfm |
| Exit Flow | Q | 173 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A2. NYSDEC DAR-1 December 26, 2012, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 12/26/2012 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) $ug/m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ $ug/m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 69.00 | 4.46E-05 | 0.39091 | **0.01** |
| Tetrachloroethene | 4.0 | 178.68 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 240.00 | 1.55E-04 | 1.35968 | **15.22** |

Calculation of AGC Based on Influent Results From 12/26/2012 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) $ug/m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ $ug/m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Tetrachloroethene | 4.0 | 178.68 | 9.37 | 6.06E-06 | 0.05306 | **0.03** |
| Toluene | 5,000 | 223,345.17 | 7.02 | 4.54E-06 | 0.03980 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 202.49 | 1.31E-04 | 1.14717 | **12.84** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
$ug/m^3$ micrograms per cubic meter

Table A3. NYSDEC DAR-1 March 26, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 161.9 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 72.2 | 0.41 |
| SVE-2 Measured Flowrate (ACFM) = | 40.3 | 0.23 |
| SVE-3 Measured Flowrate (ACFM) = | 62.4 | 0.36 |
| Sum of Individual Flows (ACFM) = | 174.8 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [(1)] | Actual Effluent Concentration |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 | ($ug/m^3$) | ($ug/m^3$) |
| cis-1,2-Dichloroethene | 0 | 0 | 68 | 24 | 49 |
| Ethanol | 70 | 70 | 69 | 70 | 57 |
| Trichloroethene | 180 | 370 | 0 | 160 | 230 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.

Table A3. NYSDEC DAR-1 March 26, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 03/26/2013 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 556 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 499 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 30.2 | fps |
| Exit Flow | Q | 162 | acfm |
| Exit Flow | Q | 154 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A3. NYSDEC DAR-1 March 26, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 03/26/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 49.00 | 2.82E-05 | 0.24697 | **0.01** |
| Ethanol | 45,000 | 2,010,106.50 | 57.00 | 3.28E-05 | 0.28729 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 230.00 | 1.32E-04 | 1.15926 | **12.98** |

Calculation of AGC Based on Influent Results From 03/26/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 24.26 | 1.40E-05 | 0.12230 | **0.00** |
| Ethanol | 45,000 | 2,010,106.50 | 69.64 | 4.01E-05 | 0.35102 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 159.55 | 9.18E-05 | 0.80418 | **9.00** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

Table A4. NYSDEC DAR-1 June 20, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 148.0 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 56.7 | 0.40 |
| SVE-2 Measured Flowrate (ACFM) = | 36.0 | 0.25 |
| SVE-3 Measured Flowrate (ACFM) = | 48.8 | 0.35 |
| Sum of Individual Flows (ACFM) = | 141.5 | |

| | Lab Data ($ug/m^3$) | | | | |
|---|---|---|---|---|---|
| | SVE-1 [2] | SVE-2 | SVE-3 [2] | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
| cis-1,2-Dichloroethene | -- | 0 | -- | NA | 28 |
| Methylene Chloride | -- | 21 | -- | NA | 0 |
| Toluene | -- | 0 | -- | NA | 22 |
| Trichloroethene | -- | 100 | -- | NA | 160 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.
2. Samples SVE-1 and SVE-3 collected on June 20, 2013 arrived at the laboratory flat.

NA not applicable

-- not analyzed

Table A4. NYSDEC DAR-1 June 20, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 06/20/2013 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 574 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 530 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 27.6 | fps |
| Exit Flow | Q | 148 | acfm |
| Exit Flow | Q | 136 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A4. NYSDEC DAR-1 June 20, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 06/20/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 28.00 | 1.43E-05 | 0.12506 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 22.00 | 1.12E-05 | 0.09826 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 160.00 | 8.16E-05 | 0.71462 | **8.00** |

Calculation of AGC Based on Influent Results From 06/20/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ [3] ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 21.00 | 1.07E-05 | 0.09379 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 100.00 | 5.10E-05 | 0.44664 | **5.00** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.
3. Samples SVE-1 and SVE-3 collected on June 20, 2013 arrived at the laboratory flat. Influent concentrations assumed equal to SVE-2 lab data concentrations.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

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Table A5. NYSDEC DAR-1 September 19, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 156.9 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 66.4 | 0.40 |
| SVE-2 Measured Flowrate (ACFM) = | 41.0 | 0.25 |
| SVE-3 Measured Flowrate (ACFM) = | 57.5 | 0.35 |
| Sum of Individual Flows (ACFM) = | 164.9 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 [2] | | |
| cis-1,2-Dichloroethene | 0 | 0 | -- | 0 | 65 |
| Trichloroethene | 0 | 0 | -- | 0 | 180 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow.
2. Sample SVE-3 collected on September 19, 2013 arrived at the laboratory flat.

-- not analyzed

Table A5. NYSDEC DAR-1 September 19, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 09/19/2013 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 558 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 525 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 29.3 | fps |
| Exit Flow | Q | 157 | acfm |
| Exit Flow | Q | 148 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A5. NYSDEC DAR-1 September 19, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 09/19/2013 Sampling Event [(1)]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 65.00 | 3.62E-05 | 0.31669 | **0.01** |
| Trichloroethene | 0.2 | 8.93 | 180.00 | 1.00E-04 | 0.87698 | **9.82** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

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Table A6. NYSDEC DAR-1 December 17, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 168.7 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 69.2 | 0.45 |
| SVE-2 Measured Flowrate (ACFM) = | 29.4 | 0.19 |
| SVE-3 Measured Flowrate (ACFM) = | 55.4 | 0.36 |
| Sum of Individual Flows (ACFM) = | 153.9 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 | | |
| cis-1,2-Dichloroethene | 0 | 0 | 0 | 0 | 26 |
| Ethanol | 0 | 72 | 120 | 57 | 76 |
| Methylene Chloride | 0 | 0 | 20 | 7 | 0 |
| Toluene | 25 | 23 | 57 | 36 | 26 |
| Trichloroethene | 0 | 0 | 0 | 0 | 100 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.

Table A6. NYSDEC DAR-1 December 17, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 12/17/2013 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 531 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 497 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 31.5 | fps |
| Exit Flow | Q | 169 | acfm |
| Exit Flow | Q | 168 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A6. NYSDEC DAR-1 December 17, 2013, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 12/17/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 26.00 | 1.63E-05 | 0.14305 | **0.01** |
| Ethanol | 45,000 | 2,010,106.50 | 76.00 | 4.77E-05 | 0.41815 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 26.00 | 1.63E-05 | 0.14305 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 100.00 | 6.28E-05 | 0.55020 | **6.16** |

Calculation of AGC Based on Influent Results From 12/17/2013 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 63 | 2,814.15 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Ethanol | 45,000 | 2,010,106.50 | 56.94 | 3.58E-05 | 0.31326 | **0.00** |
| Methylene Chloride | 60 | 2,680.14 | 7.20 | 4.52E-06 | 0.03961 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 36.14 | 2.27E-05 | 0.19883 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

Table A7. NYSDEC DAR-1 March 27, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 177.4 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 74.9 | 0.44 |
| SVE-2 Measured Flowrate (ACFM) = | 37.8 | 0.22 |
| SVE-3 Measured Flowrate (ACFM) = | 57.6 | 0.34 |
| Sum of Individual Flows (ACFM) = | 170.2 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [1] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 | | |
| Acetone | 0 | 0 | 58 | 20 | 48 |
| Ethanol | 43 | 60 | 190 | 96 | 170 |
| m,p-Xylene | 0 | 0 | 28 | 9 | 25 |
| Toluene | 0 | 0 | 28 | 9 | 27 |
| Trichloroethene | 0 | 0 | 0 | 0 | 53 |

**Notes/Assumptions:**

1. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.

Table A7. NYSDEC DAR-1 March 27, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Parameters for 03/27/2014 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [1] | T | 553 | $^{o}R$ |
| Ambient Temperature [2] | Ta | 496 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 33.1 | fps |
| Exit Flow | Q | 177 | acfm |
| Exit Flow | Q | 169 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. The stack discharge temperature is based on recorded parameters.
2. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A7. NYSDEC DAR-1 March 27, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.

Calculation of AGC Based on Actual Effluent Results From 03/27/2014 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| Acetone | 30,000 | 1,340,071.00 | 48.00 | 3.05E-05 | 0.26677 | **0.00** |
| Ethanol | 45,000 | 2,010,106.50 | 170.00 | 1.08E-04 | 0.94481 | **0.00** |
| m,p-Xylene | 100 | 4,466.90 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 27.00 | 1.71E-05 | 0.15006 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 53.00 | 3.36E-05 | 0.29456 | **3.30** |

Calculation of AGC Based on Influent Results From 03/27/2014 Sampling Event [1]

| Compounds | Maximum Limit on $C_a$ ($AGC^2$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| Acetone | 30,000 | 1,340,071.00 | 19.62 | 1.24E-05 | 0.10902 | **0.00** |
| Ethanol | 45,000 | 2,010,106.50 | 96.49 | 6.12E-05 | 0.53627 | **0.00** |
| m,p-Xylene | 100 | 4,466.90 | 9.47 | 6.01E-06 | 0.05263 | **0.00** |
| Toluene | 5,000 | 223,345.17 | 9.47 | 6.01E-06 | 0.05263 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |

**Notes/Assumptions:**

1. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
2. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter

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Table A8. NYSDEC DAR-1 July 1, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.[1]

Mass Balance

| | | |
|---|---|---|
| Measured Effluent Flowrate = | 150.7 | ACFM |
| | | % of Total Flow |
| SVE-1 Measured Flowrate (ACFM) = | 65.0 | 0.40 |
| SVE-2 Measured Flowrate (ACFM) = | 41.4 | 0.25 |
| SVE-3 Measured Flowrate (ACFM) = | 56.9 | 0.35 |
| Sum of Individual Flows (ACFM) = | 163.4 | |

| | Lab Data ($ug/m^3$) | | | Mass Balance Concentration [2] ($ug/m^3$) | Actual Effluent Concentration ($ug/m^3$) |
|---|---|---|---|---|---|
| | SVE-1 | SVE-2 | SVE-3 | | |
| Ethanol | 0 | 100 | 0 | 25 | 120 |
| Trichloroethene | 0 | 0 | 0 | 0 | 140 |

**Notes/Assumptions:**

1. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
2. Mass balance concentration = Lab Data Concentration SVE-1 x SVE-1 % of Total Flow + Lab Data Concentration SVE-2 x SVE-2 % of Total Flow + Lab Data Concentration SVE-3 x SVE-3 % of Total Flow.

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Table A8. NYSDEC DAR-1 July 1, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.[1]

Parameters for 07/01/2014 Sampling Event

| | | | |
|---|---|---|---|
| Discharge Temperature [2] | T | 563 | $^{o}R$ |
| Ambient Temperature [3] | Ta | 532 | $^{o}R$ |
| Stack Diameter | D | 4.049 | in |
| Stack Radius | R | 0.169 | ft |
| Stack Area | A | 0.09 | $ft^2$ |
| Exit Velocity | V | 28.1 | fps |
| Exit Flow | Q | 151 | acfm |
| Exit Flow | Q | 141 | scfm |
| Stack Height | $h_s$ | 12 | ft |
| Building Height | $h_b$ | 10 | ft |
| Ratio of Heights | $h_s/h_b$ | 1.20 | |
| Plume rise credit? $h_s/h_b > 1.5$? | (If no, $h_e=h_s$) | No | |
| Momentum Flux | Fm = Ta/T * V2 * R2 | n/a | $ft^4/s^2$ |
| Effective Stack Height | $h_e$ | 12 | ft |
| Reduction Factor? $2.5 > h_s/h_b > 1.5$? | | No, do not reduce impact | |
| Actual Annual Impact | $C_a$ | $RF*6*Q_a/h_e^{2.25}$ | |
| Mass Flow | $Q_a$ | S lbs emitted for last 12 months | |

**Abbreviations:**

$^{o}R$: degrees Rankine
in: inches
ft: feet
fps: feet per second
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
s: second
lbs: pounds

**Notes/Assumptions:**

1. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
2. The stack discharge temperature is based on recorded parameters.
3. The ambient temperature based on www.weather.newsday.com historic temperatures.

Table A8. NYSDEC DAR-1 July 1, 2014, Air Modeling Estimate for Vapor Recovery System, United Stellar Industries, Plainview, NY.[1]

Calculation of AGC Based on Actual Effluent Results From 07/01/2014 Sampling Event [2]

| Compounds | Maximum Limit on $C_a$ ($AGC^3$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Actual Effluent Emissions $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| Ethanol | 45,000 | 2,010,106.50 | 120.00 | 6.35E-05 | 0.55635 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 140.00 | 7.41E-05 | 0.64907 | **7.27** |

Calculation of AGC Based on Influent Results From 07/01/2014 Sampling Event [2]

| Compounds | Maximum Limit on $C_a$ ($AGC^3$) ug/$m^3$ | Maximum Mass Flow $Q_a$ lb/yr | Influent Concentrations $C_a$ ug/$m^3$ | Mass Flow per Hour lb/hr | Mass Flow per Year lb/yr | **Percent of Annual** **%** |
|---|---|---|---|---|---|---|
| Ethanol | 45,000 | 2,010,106.50 | 25.37 | 1.34E-05 | 0.11761 | **0.00** |
| Trichloroethene | 0.2 | 8.93 | 0.00 | 0.00E+00 | 0.00000 | **0.00** |

**Notes/Assumptions:**

1. June 2014 quarterly compliance sampling event was completed on July 1, 2014. Air samples were collected on July 10, 2014.
2. Calculations assume that the system will run with the maximum allowable concentrations between quarterly readings.
3. AGC refers to the Annual Guideline Concentration as determined using the hand calculations in the DAR-1 AGC/SGC Tables dated February 28, 2014.

**Abbreviations:**

AGC Allowable Annual Guideline Concentration
DAR-1 Division of Air Resources-1 Air Guide-1
lb/yr pounds per year
lb/hr pounds per hour
SGC Short-term Guideline Concentrations
ug/$m^3$ micrograms per cubic meter