

November 1, 2001

Robert Weimer  
ADEC/UST  
555 Cordova St.  
Anchorage, AK 99501

RECEIVED  
NOV 06 2001

Dept. of Environmental Conservation  
Underground Storage Tanks — FAP

**Re: Senco; Spill #98210030101; Monitoring Well Results; Seventh Sampling Event**

All three monitoring wells at the Senco site were sampled on 10/5/01. The lab results for the wells are attached, as is the running Monitoring Well Log.

The only analyte detected was Ethylbenzene, at ~.2% of cleanup limits. All other parameters were non-detect.

The last time any analyte for any of these three wells exceeded default limits was in December 1999. Recently, the traces, if detected at all, appeared more likely to have resulted from sources other than contaminated soil. Other contributions include natural organics and the coatings on the utility pipes. Since wells 1 & 2 are in a heavily traveled alley, the flush mounts are exposed to damage that could lead to groundwater contamination. A large puddle regularly forms over these wells.

I strongly recommend this site be closed and the wells properly decommissioned at the earliest opportunity. The risk from surface contamination reaching groundwater through these wells far exceeds the value of any remaining information obtainable from further sampling.

Sincerely,



Ralph Hulbert, P.E.

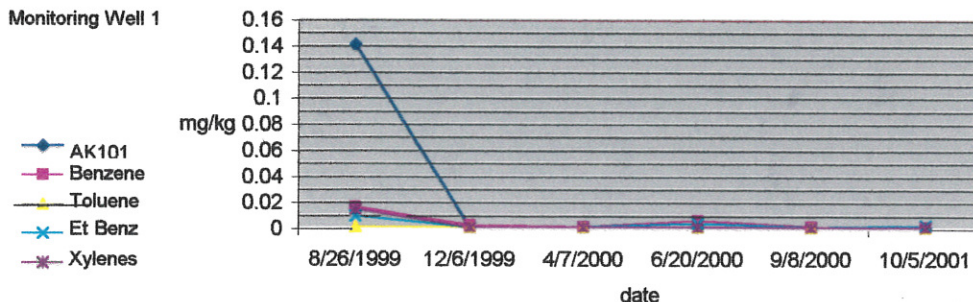
Att: Lab results  
Monitoring Well Log

Cc: Clay Dial, Senco Alaska

## Monitoring Well Log

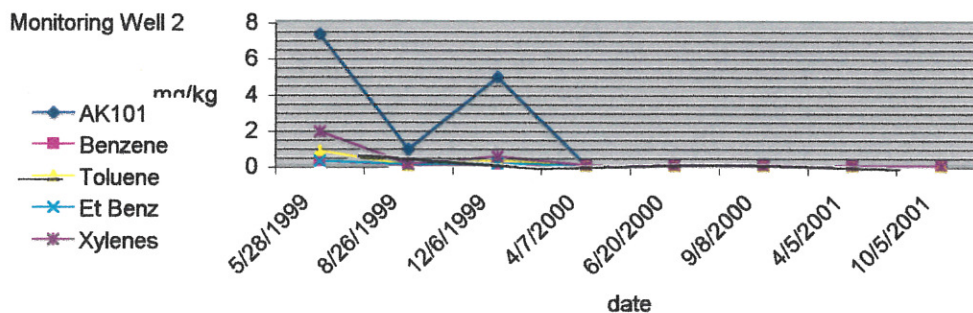
| Monitoring Well #1 Results in mg/kg |           |       |          |         |         |         |         |                            |
|-------------------------------------|-----------|-------|----------|---------|---------|---------|---------|----------------------------|
| Sample #                            | Date      | AK101 | Benzene  | Toluene | Et Benz | Xylenes | Depth   | Comments                   |
| Goal                                |           | 1.3   | 0.005    | 1       | 0.7     | 10      | ft BTOC | From 18 AAC 75.341 Table C |
|                                     | 5/28/1999 |       |          |         |         |         | 2.87    | No lab sample              |
| MW1                                 | 8/26/1999 | 0.14  | 0.0154   | 0       | 0.00847 | 0.01377 | 1.21    | First test                 |
| SMW1                                | 12/6/1999 | 0     | 0.00148  | 0       | 0       | 0       | 5.5     | Second test                |
| MW1                                 | 4/7/2000  | 0     | 0        | 0       | 0       | 0       | 5.2     | Third test                 |
| SMW62000-1                          | 6/20/2000 | 0     | 0.00508  | 0       | 0.00273 | 0       | 3.33    | Fourth test                |
| SMW9800-1                           | 9/8/2000  | 0     | 0.000507 | 0       | 0       | 0       | 3.3     | Fifth test                 |
| SEN1051-1                           | 10/5/2001 | 0     | 0        | 0       | 0.0014  | 0       | 5.8     | seventh event              |

Monitoring Well 1



| Monitoring Well #2 Results in mg/kg |           |       |          |         |         |         |       |                    |
|-------------------------------------|-----------|-------|----------|---------|---------|---------|-------|--------------------|
| Sample #                            | Date      | AK101 | Benzene  | Toluene | Et Benz | Xylenes | Depth | Comments           |
| SGW99-1                             | 5/28/1999 | 7.3   | 0.25     | 0.815   | 0.259   | 1.89    | 3.53  | First test         |
| MW2                                 | 8/26/1999 | 0.89  | 0.00561  | 0.0043  | 0.0206  | 0.0743  | 1.71  | 2nd test           |
| SMW2                                | 12/6/1999 | 4.9   | 0.0632   | 0.273   | 0.0917  | 0.489   | 5.81  | 3rd test           |
| MW2                                 | 4/7/2000  | 0     | 0        | 0       | 0       | 0       | 5.5   | 4th test           |
| SMW62000-2                          | 6/20/2000 | 0     | 0.000956 | 0       | 0       | 0       | 3.75  | 5th test           |
| SMW9800-2                           | 9/8/2000  | 0     | 0.000569 | 0       | 0       | 0       | 4.6   | 6th test           |
| S4501                               | 4/5/2001  | 0     | 0.00053  | 0       | 0       | 0       | 6.31  | 6th sampling event |
| SEN1051-2                           | 10/5/2001 | 0     | 0        | 0       | 0       | 0       | 5.46  | 7th sampling event |

Monitoring Well 2



| Monitoring Well #3 Results in mg/kg |           |       |         |         |         |         |       |                    |
|-------------------------------------|-----------|-------|---------|---------|---------|---------|-------|--------------------|
| Sample #                            | Date      | AK101 | Benzene | Toluene | Et Benz | Xylenes | Depth | Comments           |
| MW3-GW1                             | 6/8/1999  | 0     | 0       | 0       | 0       | 0       | 26.48 | First test         |
| MW3                                 | 8/26/1999 | 0     | 0       | 0       | 0       | 0       | 26.24 | 2nd test           |
| SMW3                                | 12/6/1999 | 0     | 0       | 0       | 0       | 0       | 24.28 | 3rd test           |
| MW3                                 | 4/7/2000  | 0     | 0       | 0       | 0       | 0       | 25.33 | 4th test           |
| SMW62000-3                          | 6/20/2000 | 0     | 0       | 0       | 0       | 0       | 26.33 | 5th test           |
| SEN1051-3                           | 10/5/2001 | 0     | 0       | 0       | 0       | 0       | 27.73 | 7th sampling event |

Notes: Lab non-detects are assigned zero values for graphing purposes. Shaded cells exceed target goals



October 5, 2001

Reports To:  
Hulbert, Ralph P.E.  
P.O. Box 1846  
Palmer, AK 99645

Dear Reports To::

Thank you for your recent request for analytical services. The sample(s) below will be analyzed per your request as outlined below:

Project ID: SENCO  
Workorder: 1016846  
Quote No.:

**Client Sample ID: SEN1051-1**  
CT&E Ref. No.: 1016846001  
Matrix: Water (Surface, Eff., Ground)  
Analysis Requested: AK101/BTEX Combo, 8021 (W)

Date Collected: 10/05/01  
Date Received: 10/05/01

**Client Sample ID: SEN1051-2**  
CT&E Ref. No.: 1016846002  
Matrix: Water (Surface, Eff., Ground)  
Analysis Requested: AK101/BTEX Combo, 8021 (W)

Date Collected: 10/05/01  
Date Received: 10/05/01

**Client Sample ID: SEN1051-3**  
CT&E Ref. No.: 1016846003  
Matrix: Water (Surface, Eff., Ground)  
Analysis Requested: AK101/BTEX Combo, 8021 (W)

Date Collected: 10/05/01  
Date Received: 10/05/01

These samples will be disposed of 30 days after completion of final report.

For further information or assistance concerning this project please contact your CT&E Project Manager, Rhonda L Strucher, at (907) 562-2343.





200 W. Potter Drive  
Anchorage, AK 99518-1605  
Tel: (907) 562-2343  
Fax: (907) 561-5301  
Web: <http://www.cteesi.com>

Ralph Hulbert  
AlaskChem Engineering

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|                     |                            |
|---------------------|----------------------------|
| <b>Work Order:</b>  | 3014997<br>SENCO (1016846) |
| <b>Client:</b>      | Alaska Chem Engineering    |
| <b>Report Date:</b> | October 19, 2001           |

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Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

|    |   |
|----|---|
| U  | Indicates the analyte was analyzed for but not detected.                        |
| J  | Indicates an estimated value that falls below PQL, but is greater than the MDL. |
| B  | Indicates the analyte is found in the blank associated with the sample.         |
| *  | The analyte has exceeded allowable limits.                                      |
| GT | Greater Than  |
| D  | Secondary Dilution  |
| LT | Less Than   |
| !  | Surrogate out of range  |



CT&E Environmental Services Inc.

CT&E Ref.# 3014997001  
Client Name Alaska Chem Engineering  
Project Name/# SENCO (1016846)  
Client Sample ID SEN1051-1  
Matrix Aqueous  
Ordered By

Client PO#  
Printed Date/Time 10/19/2001 13:33  
Collected Date/Time 10/05/2001 0:00  
Received Date/Time 10/15/2001 9:00  
Technical Director Stephen C. Ede

Released By

*Denise Calafato*

Sample Remarks:

Sample analyzed at the Ludington, Michigan laboratory of CT&E Environmental Services Inc.

| Parameter                     | Results  | PQL    | Units | Method         | Allowable Limits | Prep Date | Analysis Date | Init |
|-------------------------------|----------|--------|-------|----------------|------------------|-----------|---------------|------|
| <b>GRO/8021 COMBINATION</b>   |          |        |       |                |                  |           |               |      |
| Gasoline Range Organics       | 0.040 U  | 0.040  | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Benzene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Ethylbenzene                  | 0.0014   | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| o-Xylene                      | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| P & M -Xylene                 | 0.0020 U | 0.0020 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Toluene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| <b>Surrogates</b>             |          |        |       |                |                  |           |               |      |
| 1,4-Difluorobenzene <IS/Surr> | 83.2     |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |
| 4-Bromofluorobenzene <Surr>   | 90.9     |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |



CT&E Ref.# 3014997002  
Client Name Alaska Chem Engineering  
Project Name/# SENCO (1016846)  
Client Sample ID SEN1051-2  
Matrix Aqueous  
Ordered By

Client PO#  
Printed Date/Time 10/19/2001 13:33  
Collected Date/Time 10/05/2001 0:00  
Received Date/Time 10/15/2001 9:00  
Technical Director Stephen C. Ede

Released By

*Denise Calafato*

## Sample Remarks:

Sample analyzed at the Ludington, Michigan laboratory of CT&amp;E Environmental Services Inc.

| Parameter                     | Results  | PQL    | Units | Method         | Allowable Limits | Prep Date | Analysis Date | Init |
|-------------------------------|----------|--------|-------|----------------|------------------|-----------|---------------|------|
| <b>GRO/8021 COMBINATION</b>   |          |        |       |                |                  |           |               |      |
| Gasoline Range Organics       | 0.040 U  | 0.040  | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Benzene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Ethylbenzene                  | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| o-Xylene                      | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| P & M -Xylene                 | 0.0020 U | 0.0020 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Toluene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| <b>Surrogates</b>             |          |        |       |                |                  |           |               |      |
| 1,4-Difluorobenzene <IS/Surr> | 84.9     |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |
| 4-Bromofluorobenzene <Surr>   | 97       |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |



CT&E Ref.# 3014997003  
Client Name Alaska Chem Engineering  
Project Name/# SENCO (1016846)  
Client Sample ID SEN1051-3  
Matrix Aqueous  
Ordered By

Client PO#  
Printed Date/Time 10/19/2001 13:33  
Collected Date/Time 10/05/2001 0:00  
Received Date/Time 10/15/2001 9:00  
Technical Director Stephen C. Ede

Released By

*Denise Calyato*

## Sample Remarks:

Sample analyzed at the Ludington, Michigan laboratory of CT&amp;E Environmental Services Inc.

| Parameter                     | Results  | PQL    | Units | Method         | Allowable Limits | Prep Date | Analysis Date | Init |
|-------------------------------|----------|--------|-------|----------------|------------------|-----------|---------------|------|
| <b>GRO/8021 COMBINATION</b>   |          |        |       |                |                  |           |               |      |
| Gasoline Range Organics       | 0.040 U  | 0.040  | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Benzene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Ethylbenzene                  | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| o-Xylene                      | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| P & M -Xylene                 | 0.0020 U | 0.0020 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| Toluene                       | 0.0010 U | 0.0010 | mg/L  | AK101/8021B R2 |                  | 10/18/01  | 10/18/01      | RVS  |
| <b>Surrogates</b>             |          |        |       |                |                  |           |               |      |
| 1,4-Difluorobenzene <IS/Surr> | 88.3     |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |
| 4-Bromofluorobenzene <Surr>   | 93.5     |        | %     | AK101/8021B R2 | 60-120           | 10/18/01  | 10/18/01      | RVS  |

## ANALYSIS REQUEST &amp; CHAIN OF CUSTODY

Profile or Job # SENEC Contact Ralph  
 Generator \_\_\_\_\_ Site Senec  
 Sample Location \_\_\_\_\_ Purpose of Sampling UST  
 Sample Matrix water Layers Sampled \_\_\_\_\_ Sampling Method grab  
 Sampling Device drop bottle Premixing/Preparation \_\_\_\_\_  
 Discrete ☒ or Composite \_\_\_\_\_ # of Subsamples \_\_\_\_\_ Sample Containers: Size \_\_\_\_\_ Type \_\_\_\_\_  
 Number 3 Sample taken by Ralph Date Sampled 10/5/01  
 Time Sampled 2:55 Witness Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Laboratory to Perform Analysis CTCE RUSH? \_\_\_\_\_ Date Results Requested: \_\_\_\_\_

|   | Sample ID | Matrix | # Cont. | Analyses Requested | QA/QC |
|---|-----------|--------|---------|--------------------|-------|
| ① | SEN1051-1 | water  | 2       | AK101 / BTEX       | UST   |
| ② | SEN1051-2 | "      | "       | "                  |       |
| ③ | SEN1051-3 | "      | "       | "                  |       |
|   |           |        |         |                    |       |
|   |           |        |         |                    |       |
|   |           |        |         |                    |       |

| Relinquished By: |                                | Received By: | Date/Time                        |
|------------------|--------------------------------|--------------|----------------------------------|
| 1                | Name <u>Ralph Hulbert</u>      |              | <u>10/5/01</u><br><u>3:55</u>    |
|                  | Signature <u>Ralph Hulbert</u> |              |                                  |
| 2                | Name                           |              |                                  |
|                  | Signature                      |              |                                  |
| 3                | Name <u>Michael Krohn</u>      |              | <u>10/5/01</u><br><u>3:55/00</u> |
|                  | Signature <u>Michael Krohn</u> |              |                                  |

Received at Laboratory By: Jan Toghiani Date/Time 10/5/01 15:55 Condition of Containers: \_\_\_\_\_  
 Temperature 5.8°C Seals Intact \_\_\_\_\_ Laboratory ID # \_\_\_\_\_  
 Comments: \_\_\_\_\_

1016846