



Richard E. Dunn, Director

Land Protection Branch

4244 International Parkway
Suite 104
Atlanta, Georgia 30354
404-362-2537

June 11, 2018

Ms. Annie Smith Jones
Crown Central, LLC
c/o Quality Environmental Solutions
40 Hudson Street, Suite 107
Annapolis, MD 21401

SUBJECT: Corrective Action Plan (CAP)-Part B Progress Report Review

No Further Action Required:

Former Crown GA-003
1629 Lakewood Avenue
Atlanta, Fulton County, GA
Facility ID: 9000035*1

Dear Ms. Jones:

The Georgia Underground Storage Tank Management Program (USTMP) received correspondence from Sierra Piedmont, Inc. (Sierra), dated January 11, 2018, that forwarded a properly certified Active Remediation Progress Report (#13).

Based on current requirements of the Georgia Underground Storage Tank Act, the Georgia Rules for Underground Storage Tank Management (GUST Rules) and the data submitted, the USTMP has determined that **no further action is required for the referenced release.**

However, further corrective action may be required if mandated through more stringent State or Federal statutory or regulatory changes. Additional measures may also be required if existing or future drinking water systems or surface water bodies within two miles of the site are impacted by any dissolved contamination resulting from this release, or if previously unidentified soil contamination, dissolved contamination or free product is identified as originating from this site.

The incurred expenses reported on Reimbursement Application #13B for \$5,101.50 and outlined on the Cost Review Forms (CRFs) are considered reasonable and appropriate to the Tasks described in the report.

Please present your Completion Report by **August 14, 2018**. If you have any questions, please contact me at (404) 362-2596.

Sincerely,

Kent Hankinson, P.G.
Geologist
Corrective Action Unit II

cc: David Payne, Sierra
File (CA): Fulton; 9000035

May 11, 2018

MEMORANDUM

TO: Jay Kemberling, Georgia EPD, Corrective Action Unit II

FROM: Kent Hankinson, Georgia EPD, Corrective Action Unit II

SUBJECT: Review Information Leading to Determination of Approval
Former Crown GA-003
1629 Lakewood Avenue
Atlanta, Fulton County, GA
Facility ID: 9000035*1

1. Received Active Remediation Progress Report #12, dated February 23, 2017, on February 28, 2017. Reviewed and approved on September 25, 2017. Coolox event followed by three groundwater sampling events: 30-day, 60-day and 90-day.

A grand total of \$13,531.87 was incurred on Task 1. PO approved \$16,012.75. Difference after deductions was \$ 2,480.88. Deductions were made for personnel hours to reflect maximum reimbursable rates and the average time to complete a similar scope of work. In addition, the towing charge to relocate the trailer was removed.

2. On September 28, 2017, at 1353 placed NTC letter in Marcia's tray for mailing. ARPR #13 is due by **December 15, 2017**.

3. On September 29, 2017, attempted to populate LEMIR with this review and due date for next ARPR (#13). LEMIR would not allow data entry.

4. On October 2, 2017, attempted to populate LEMIR with this review and due date for next ARPR (#13). It did not calculate and would not accept input data about this site. Jay said this was a bugged submittal and to put it in the cue to be associated on GEOS again and resubmit it to LEMIR.

5. On October 5, 2017, attempted to populate LEMIR with this review.

6. On October 11, 2017, Jay gave PKH comments. Reprinted NTC letter. This memo indicates letter already went out on **September 28, 2017**. ARPR #13 is due by **December 15, 2017**.

7. On October 26, 2017, David Payne, Sierra, called to discuss the fact that wells nearest injection points are producing lower concentrations of dissolved benzene and thinner layers of free product thickness. PKH asked Mr. Payne to send the report in and PKH will call him to discuss if he has questions.

8. On November 1, 2017, updated LEMIR with the NTC letter and reimbursement request minus deductions. Hopefully, Ayanna can complete her processing with the data typed into LEMIR this afternoon. Wrote her an email at 1515 on November 1, 2017 asking if she has all that is now needed.

9. On June 11, 2018, placed NFA letter in Marcia's tray for mailing by USPS to owner and consultant.

Consultant on 6/11/2018:

Mr. David Payne

Sierra Piedmont, Inc.

12045 Highway 92

Woodstock, GA 30188

770-792-6200 (Office-Main)

770-874-6995 (Direct)

770-792-6005 (Fax)

770-407-9177 (Cell)



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch

4244 International Parkway
Suite 104
Atlanta, Georgia 30354
404-362-2537

August 20, 2019

Ms. Annie Smith-Jones
Crown Central, LLC
c/o QES
224 Dewey Drive
Annapolis, MD 21401

SUBJECT: Well Abandonment Report and Completion Certification Review
Former Crown GA-003
1629 Lakewood Avenue
Atlanta, Fulton County, GA
Facility ID: 9000035*1

Dear Ms. Smith-Jones:

The Georgia Underground Storage Tank Management Program (USTMP) received correspondence from Sierra Piedmont, Inc. (Sierra), dated July 12, 2019, that forwarded a properly certified Well Abandonment Report and Completion Certification.

Technically, well abandonment was conducted in a sound manner according to the Georgia EPD Manual for Groundwater Monitoring, September 1991.

The incurred expenses outlined on your Cost Review Forms (CRFs) appear reasonable and appropriate to the Tasks described in the report. This determination is based on comparison to similar corrective action at other UST facilities.

If you have any questions, please contact me at 404-362-2596.

Sincerely,

Kent Hankinson, P.G.
Geologist
Corrective Action Unit II

cc: Brad Tolliver, Sierra
Debi Kirkland, Trust Fund Unit
File (CA): Fulton; 9000035

Georgia Department of Natural Resources

205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division

March 26, 1997

MEMORANDUM

TO: File

THRU: Isabelle Robinson *IR*

FROM: John Owens *JO*

SUBJECT: Underground Storage Tank Compliance:
Crown GA-3
1629 Lakewood Avenue
Atlanta, GA; Fulton County
Facility ID: 9000035

Based on a review of current Corrective Action Unit file information and the result of a site compliance evaluation, conducted on February 25, 1997 the subject facility has demonstrated substantial compliance with the GUST Rules in regard to a confirmed release from this facility.

- In 1986 the Subject Facility registered 4 USTs (1 - 10,000, 2 - 6,000, 1 - 15, 000) which have installation dates starting with 1967 and ending with 1978.
- The confirmed release was reported on 9/6/88 as a result of problems observed in inventory reconciliation.
- A 10,000 gal UST(installed in 1967) was considered to be the source of the release. The 10,000 gal UST was removed and replaced in 1988 with another UST of the Same size.
- The release was reported before any applicable release detection phase in dates.
- The Facility ceased all operations 9/14/91 and the USTs were removed in 1992.

The RCU recommends eligibility for GUST Trust Fund coverage based on compliance data currently available.

JO:kc\crown03.57

File (RC): Fulton; 9000035

Georgia Department of Natural Resources

Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
(404)362-2687

March 26, 1997

Mr. Richard Garvine
Crown Central Petroleum Corporation
One North Charles Street
Baltimore, Maryland 21201

SUBJECT: Underground Storage Tank (UST) Notice of Compliance:
Crown Station GA-003
1629 Lakewood Avenue, S. E.
Atlanta, GA; Fulton County
Facility ID: 9000035

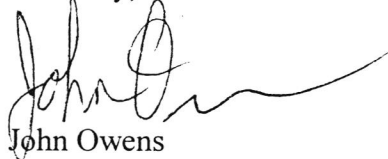
Dear Mr. Garvine:

This is in regard to your letter dated March 14, 1997, providing the additional information requested for the completion of the Gust Trust Fund Audit conducted on the subject facility on February 26, 1997.

Based on the information received the facility has been found to be in substantial compliance with respect to the Georgia Underground Storage Tank Rule requirements for notification and closure. However, this evaluation does not address the facility's compliance status with the financial assurance requirements, (i.e. establishing proof of payment of Environmental Assurance Fees, EAFs).

If you have questions regarding this correspondence, please advise.

Sincerely,



John Owens
Environmental Specialist
Regulatory Compliance Unit

JO:kc\crown03.89
cc: Isabelle Revell-Robinson
File (RC): Fulton; 9000035

*** Upgrade Deadline - 1998***

KEMRON

ENVIRONMENTAL SERVICES

1359-A Ellsworth Industrial Boulevard ■ Atlanta, Georgia 30318 ■ Telephone (404) 636-0928 ■ FAX (404) 636-7162 ■ <http://www.kemron.com>

October 14, 2005

MEMORANDUM

TO: Andrea Buerkle, Environmental Specialist, Corrective Action Unit I

FROM: Carole A. Phelan, P.E., KEMRON Environmental Services, Inc. *CAP*

SUBJECT: **Review Information Leading to Progress Report Review Comments**
Crown Station GA-003
1629 Lakewood Avenue, SE
Atlanta, Fulton County, GA
Facility ID: 9000035*1

KEMRON reviewed the May 2004 progress report and other file data for the subject facility. Comments are as follows:

- 1) EPD received an initial release notification on 9/6/88. A release of 1,800 to 2,000 gallons was suspected, based on inventory reconciliation.
- 2) EPD received a letter update on 10/11/88, and a preliminary contamination assessment report on 12/6/88:
 - a. 4 monitoring wells were installed. Soil samples were collected on 5' centers during borehole advancement. Headspace screening of all soil samples indicated elevated organic vapor concentrations (maximum 1,098 ppm). No soil samples were submitted for laboratory analysis.
 - b. BTEX was detected in each groundwater sample; maximum benzene concentration detected in groundwater was 3,220 ug/l.
 - c. Hydraulic gradient is 0.007 to the north-northeast; depth to groundwater is 28 to 30 feet.
 - d. A tightness test was performed 9/3/88, on a 10,000-gallon steel unleaded gasoline tank. The tank failed the test, and a weld failure was suspected. The UST was removed 10/12/88.
- 3) On 2/3/89, EPD requested contaminant delineation in soil and groundwater and a milestone schedule.
- 4) EPD received a milestone schedule on 3/8/89, which indicated offsite installation of monitoring wells would be necessary.
- 5) The file contains a meeting report indicating that EPD, Crown, and Crown's consultant met on 8/7/90, to discuss the status of the site. EPD requested a

status and milestone letter by 8/17/90. An updated milestone schedule was received on 8/17/90, which proposed completion of a well survey to determine appropriate action.

- 6) EPD received the results of the well survey on 9/12/90. A public supply well was reported 2.8 miles from the site. Record review and a reconnaissance survey did not identify any other wells within applicable radii. A feasibility study for soil vapor extraction was proposed.
- 7) EPD received a UST closure report on 3/9/92:
 - a. Four USTs were removed 2/5/92, as follows: one 10,000-gallon steel, two 6,000-gallon steel, and one 15,000-gallon steel.
 - b. Two soil samples were collected from beneath each UST and analyzed for BTEX (Method 8020) and TPH (Method 418.1). Maximum TPH in soil was 2,770 mg/Kg; maximum benzene in soil was 51.0 mg/Kg. Maximum total BTEX in soil was 1,598 mg/Kg.
- 8) On 4/8/96, EPD requested submittal of a CAP-Part A by 7/30/96.
- 9) EPD received a properly certified CAP-Part A on 7/30/96:
 - a. Two additional monitoring wells (MW-5, MW-6) were installed in June 1996. One soil sample from each boring was analyzed for BTEX and PAH. Maximum benzene concentration in the sample from MW-6 was 0.016 mg/kg; PAHs were not detected in either sample. Table B column 4 standards apply for soil; STLs were exceeded in the samples collected during the UST removal.
 - b. Groundwater samples were collected from wells MW-2 through MW-6 in June 1996 and analyzed for BTEX (Method 8020) and PAHs (Method 8100). Maximum benzene was reported as 7,470 ug/l in the sample from MW-5 (located in the former UST pit); maximum total PAHs was reported as 1,155 ug/l. Groundwater contamination exceeds ISWQS for benzene.
 - c. No free product was identified onsite.
 - d. Site is in a lower groundwater pollution susceptibility area. No wells were identified within applicable radii. Nearest surface water is 1,300 feet from the site.
 - e. Depth to groundwater is approximately 17 feet. Hydraulic gradient is 0.017 to the east, based on the potentiometric map (report states west-northwest).
 - f. The Site Sensitivity Score is 175 (report states 300).
 - g. Consultant recommends submittal of a CAP-Part B. SIP includes delineation of contaminants in soil and groundwater and slug tests in three wells. Consultant proposes installation of three additional monitoring wells offsite. Groundwater samples are to be analyzed for BTEX (Method 602) and PAH (Method 610).
 - h. A soil venting pilot test report is included; results indicate soil vapor extraction is feasible.

- i. Public notification was by certified mail; copies of signed return receipts are included. Non-original laboratory reports and chain-of-custody forms are included.
- 10) EPD issued a notice to implement the CAP-Part A on 12/29/96, with the following contingency: please include additional wells to determine the full horizontal extent of groundwater contamination.
- 11) EPD received a milestone schedule on 1/20/97.
- 12) EPD issued a proposed Corrective Action Agreement on 12/15/98. EPD requested additional documentation for the reimbursement claim on 2/26/99.
- 13) EPD received a groundwater monitoring report on 6/29/99:
 - a. Wells MW-1 and MW-4 were reportedly destroyed or abandoned. Wells MW-2, MW-3, MW-5, and MW-6 were sampled and analyzed for BTEX and PAHs. The narrative states that samples were analyzed for MTBE, but the summary table does not list analytical results.
 - b. Maximum benzene concentration was 13,800 ug/L in MW-5; maximum total PAH concentration was 1,155 ug/L. Copies of the laboratory report are not included.
 - c. Depth to groundwater ranged from 22 to 24 feet below surface grade; groundwater gradient is east.
 - d. Consultant proposed to install additional monitoring wells offsite to the east to provide horizontal delineation. Consultant proposes installation of one deep well onsite for vertical delineation.
- 14) A record of telephonic conversation dated 8/6/99, is in the file from Andrea Buerkle. Consultant was given approval for the proposed horizontal delineation. EPD requested an updated well survey; if no wells within radii were identified, vertical delineation would not be required.
- 15) On 10/19/99, EPD received a request for deadline extension for completing the site investigation report. On 12/13/99, EPD received copies of letters seeking access to downgradient properties.
- 16) On 2/25/00, EPD received a project update:
 - a. One well (MW-7) was installed on the adjacent property to the east.
 - b. The wells were sampled 10/25/99, and analyzed for BTEX and MTBE. Maximum benzene concentration in groundwater was reported as 22,465 ug/l for MW-7. Copies of the laboratory report are not included.
 - c. Consultant requested EPD's assistance obtaining access for installation of other offsite wells.
- 17) EPD received copies of access letters 1/22/01. EPD received an updated milestone schedule on 6/29/01.

- 18) EPD received a Site Investigation Report on 9/4/01:
 - a. Four monitoring wells were installed; well MW-5R was installed to replace MW-5 (which was destroyed by paving), MW-8 through MW-10 east and south of the site. Well diagrams and boring logs are included.
 - b. Monitoring wells MW-2 and MW-7 contained free product (maximum 0.85 feet in MW-7). Manual bailing was initiated 7/31/01.
 - c. Depth to groundwater ranges from 19 to 31' bsl; gradient is to the east.
 - d. Monitoring wells were sampled 7/3/01; samples were analyzed for BTEX and MTBE (Method 8260). Maximum dissolved benzene was reported as 14,200 ug/l for the sample from MW-5R. Horizontal delineation is not complete.
 - e. The nearest surface water is a creek located 600' ENE of the site.
 - f. Consultant recommends continued monthly free product recovery, two vacuum-enhanced fluid recovery events at wells MW-2 and MW-7, and preparation of a CAP-Part B.
 - g. The reported site sensitivity score is 34,475. However, the score is based on maximum benzene detected in soil between 10 and 50 mg/kg. KEMRON calculated the score as 34,500, based on benzene concentration in soil of 51.0 mg/kg reported in the closure report.
 - h. Non-original laboratory reports and chain-of-custody forms are included.
- 19) A copy of disposal manifest for soil cuttings was received by EPD on 9/7/01.
- 20) EPD received a free product recovery summary on 1/31/02:
 - a. Wells MW-2, MW-5R, and MW-7 contain free product (maximum thickness 1.68 feet in MW-5R).
 - b. Manual recovery was conducted December 2001 and January 2002.
 - c. Enhanced fluid recovery events were conducted 10/29/01 and 12/1/01. Free product was not detected in MW-2 after the second enhanced fluid recovery event.
 - d. Consultant recommends weekly manual product recovery until plans for more aggressive methods can be developed.
- 21) EPD received a site investigation plan on 2/7/02. Eight additional wells were proposed to be installed onsite and downgradient for free product delineation and recovery.
- 22) EPD approved the Site Investigation Plan on 2/25/02. EPD requested installation of two additional monitoring wells at the following locations: west of MW-5R and north of MW-2.
- 23) EPD received deadline extension requests on 4/30/02 and 5/7/02.
- 24) EPD received a properly certified CAP-Part B on 5/16/02:
 - a. Nine monitoring wells were installed March 2002. Free product was detected in three onsite wells and two offsite wells. Free product

- delineation is incomplete to the west and south. Monthly manual product recovery was conducted.
- b. Groundwater samples were collected and analyzed for BTEX, MTBE, and naphthalene (Method 8260). Maximum benzene concentration is reported as 18,800 ug/l; maximum naphthalene concentration is 1,420 ug/l.
 - c. Depth to groundwater is between 19-31' bls; gradient is 0.004 to the east and northeast.
 - d. The goal of the proposed corrective action is free product removal. Consultant proposes installation of four additional wells for delineation and potential free product recovery. Semi-monthly EFR, using a mobile system, is proposed for one month, followed by monthly EFR for 10 to 12 months. Eight wells will serve as extraction points.
 - e. Public notification is by certified mail; appropriate adjacent landowners, public officials and City of Atlanta Road Department were notified. Copies of return receipts are included.
 - f. Consultant indicated a claim for reimbursement would be submitted under separate cover.
- 26) EPD issued a CAP-B comments letter on 9/27/02. The GUST Trust Fund application and cost proposal were not submitted with the CAP-B.
 - 27) EPD received a letter 9/27/02. Consultant indicated that ACB gave verbal approval to conduct one EFR event until the CAP-B is reviewed.
 - 28) A CAP-B addendum was received 10/15/02.
 - 29) A free product recovery report was received 9/30/02. 5 wells have measurable free product, which will be manually bailed weekly.
 - 30) A free product recovery report was received 11/19/02.
 - 31) A free product recovery report was received 1/21/03. This report includes discussion of the 3rd EFR event conducted at the site 10/7/02.
 - 32) A CAP-B addendum was received 1/28/03. ACB phoned consultant to request a few additional items:
 - a. A contaminant transport model will be submitted with the 1st remediation progress report with proposed ACL if the model predicts impact to receptor. ACB notes model required for ACLs after FP removed.
 - b. After 7 EFR events, consultant will re-evaluate the remedial strategy.
 - c. In addition to the 4 free product delineation wells, a well will be installed south of MW-7 and a well will be installed downgradient of MW-16.
 - 33) EPD issued notice to implement the CAP-B on 2/10/03.
 - 34) The CAA for the CAP-B was executed 9/10/03.

- 35) A free product recovery report was received 3/20/03.
- 36) A remediation progress report #1 was received 2/27/04.
- Reports first 5 EFR events conducted in 2003.
 - The 5 EFR events removed 133 gallons gasoline.
 - In preparation for the model, consultant revised receptor survey and determined no receptors within 1,500' of plume. The stream previously identified 200' downgradient is now said to be a wet weather ditch and not hydraulically connected to groundwater coming from the site. Consultant proposes no modeling.
 - The 6 wells were installed as proposed in the CAP-B.
- 37) A remediation progress report #2 was received 5/24/04.
- Reports on the 6th and 7th EFR events.
 - The 7 EFR events removed 188 equivalent gallons gasoline.
 - At the last gauging event, only 2 wells had free product: 0.4' at MW-16 and 0.01' at MW-20.
 - Consultant proposes 3 additional EFR events to complete free product removal.
- 38) KEMRON notes the following observations:
- The model was never conducted. Consultant says no receptors within 1,500'. USGS topo map from CAP-A shows stream downgradient (NE) at 1,100'. CAP-B discusses headwaters of a creek are 600' from site and 350' from MW-10.
 - Looks like the water well survey conducted in 1990. (no wells)
 - After 7 EFR events the consultant proposes to conduct 3 more.
 - All the wells were installed, but it doesn't look like any data has been obtained. These wells are not included in the free product thickness tables and no groundwater analytical data is found.
 - The CAP-B proposed 2 groundwater monitoring events.
- 39) KEMRON has prepared a letter for the following comments:
- Please conduct an updated free product gauging, liquid level gauging, and groundwater sampling event. Provide a current free product thickness map, potentiometric surface map, and benzene isoconcentration map. Include updated tables showing groundwater elevations, free product thicknesses, and groundwater analytical results.
 - Please provide the construction information for the six monitoring wells installed during implementation of the CAP-Part B (MW-20 through MW-25).
 - Please prepare a tabulated summary of the seven EFR events. Include the date of each event, the monitoring wells used for extraction, the duration of the event, the equivalent gallons of gasoline removed, and the volume of groundwater removed.

4. Please conduct an updated water resources survey. Site documents indicate the water supply well survey was conducted in 1990. Site documents also provide conflicting information as to the nearest downgradient surface water.
5. Please conduct a groundwater contaminant fate and transport model to predict impact to the nearest downgradient receptor. Propose ACLs for sentinel monitoring wells at the site.
6. Please propose future corrective actions to be conducted at the site based on the current data.