

*Prepared for*

**Atlantic Richfield Company**

515 South Flower Street  
Los Angeles, California 90071

**FINAL COMPLETION REPORT**

**REMEDIAL ACTIVITIES FOR  
SEPARATOR AND POWERHOUSE**

**SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK**

**VOLUME II**

*Prepared by*



**GEOSYNTEC CONSULTANTS**

5775 Peachtree Dunwoody Road  
Atlanta, Georgia 30342

Project Number GQ3201

April 1994



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515 South Flower Street  
Los Angeles, California 90071

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5775 Peachtree Dunwoody Road  
Atlanta, Georgia 30342

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## **APPENDIX C**

### **GEOSYNTEC CONSULTANTS WEEKLY FIELD REPORTS**

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 22 August 1992

**SUBJECT:** 10 to 16 August 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 10 to 16 August 1992.

- Slurry wall excavation continued from Station 6+00 to 5+30 on 10 August and excavation terminated. Trench was completely filled with soil-bentonite backfill and the trench bentonite slurry was pumped into an above ground holding pond constructed of working pad backfill soil. The section from Station 3+00 to 5+30 will be completed when cap construction has started (actual schedule to be proposed by Geo-Con). The slurry will be checked for density and, after the addition of additional bentonite (if necessary), used for final section of trench.
- Depth of trench varied from 31 ft (9.4 m) (Station 5+40 to 5+30) to 28.5 ft (8.7 m) (Station 6+00).

Quantity Excavated	This Week	Cumulative
Length (ft)	70	2583
Length (m)	21.3	787
Length (%)	2.5	91
Area (ft <sup>2</sup> )	2,105	83,450
Area (m <sup>2</sup> )	196	7,753
Volume (yd <sup>3</sup> )	187	7,328
Volume (m <sup>3</sup> )	143	5,603

10 to 16 August 1992, Weekly Field Report  
22 August 1992  
Page 2


- Geo-Con's slurry wall crew depart from site on 11 August. Backhoe operator will return to site to complete wall.
- Excavation of Refinery Area A, Current Controls Building, started on 10 August from southwest corner. Backfill of area also started on 10 August. After discussion with J. Salvatore, COE, and M. Negrelli and L. DiGuardia, EPA, on 11 August decided to stop excavation 10 ft (3 m) out from edge of Current Controls building.
- Gas line, 2 in. diameter and 12 to 15 in. below ground surface severed by backhoe during Area A excavation.
- Soils excavated from Area A transported to CELA.
- GeoSyntec Consultants adjusting geometry of CELA cap to provide approximately 19,500 yd<sup>3</sup> additional capacity.
- No. 2 gas vent stone imported and stockpiled in staging area.
- High early strength cement, to be used for stabilization, imported and stored on pallets under plastic sheeting.
- Submittals reviewed for:
  - Original site survey (27FE01 and 28FE01);
  - Gas vent piping and pipe (28QC19);
  - Low permeability geosynthetic (28WP05, Add 6);
  - Borrow source compliance, gas vent stone (28QC04, Add 2); and
  - Borrow source compliance, chemical analysis (28QC04, Add 3).
- Geo-Con weekly progress meeting held on 14 August.
- Separator pre-mobilization meeting held with Severson Environmental Services, Inc. on 14 August.

\* \* \* \* \*

Copy to: Dr. J.F. Beech, P.E., GeoSyntec Consultants  
Mike Hrywnak, COE

## WEEKLY FIELD REPORT

TO: Mr. Robert E. Ivy, ARCO

FROM: Roger B. North, P.E., GeoSyntec Consultants 

DATE: 25 August 1992

SUBJECT: 17 to 23 August 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 17 to 23 August 1992.

### UNIT 1

- Discussions held with J. Drumm, DEC, concerning completion of slurry wall. Geo-Con to provide a time and activity schedule that relates slurry wall completion to the CELA cap construction.
- Stabilization of top 3 ft (0.9 m) of CELA material started on 20 August and continued on 21 and 22 August. Five areas selected for initial treatment. Work being performed in level B protection.
- Excavation and backfilling of Refinery Area A, Current Controls Building, continued on 17 August and completed on 19 August. The two sheds near the southwest edge of the area were temporarily moved to permit excavation of the top 1 ft (0.6 m) of soil from beneath these structures. At the request of Current Controls, the south portion of Area A was backfilled with gravel over the common fill to provide a parking area. The remainder of Area A was backfilled with topsoil over the common fill. Area seeded and fertilized on 19 August and mulched on 20 and 21 August.
- Refinery Area B, south end of swale, backfilled with common fill on 20 August.
- Refinery Area C, near Powerhouse, excavated on 20 August and backfilled with common fill on 21 August. Portion of Area C in

SUNY lay-down area backfilled with gravel over common fill; remainder backfilled with topsoil and seeded over common fill. Following discussions with M. Hrywnak, COE, and M. Negrelli, EPA, it was decided to limit the excavation of Area C on the east side and not remove any of the rip-rap river protection.

- Excavation of Refinery Area D, Otis Eastern, started on 18 August and completed on 19 August. Placement of common fill started on 19 August and completed on 20 August. At request of Otis Eastern Area D was backfilled with gravel over the common fill to provide a parking/lay-down storage area. Gravel placement started on 20 August and completed on 21 August.
- Refinery Area E, dike area, backfilled with common fill on 22 August.
- Refinery Area F, dike area, excavated and backfilled with common fill on 21 August and backfilled with topsoil on 22 August.
- Soils excavated from Refinery Areas A, C, D and F transported to CELA for disposal.
- Gas vent stone delivered and stockpiled in staging area.
- Gas vent pipe delivered on 20 August; only fittings area still outstanding.
- Geotextile delivered and stored in staging area on 18 August. Completes delivery of geotextiles.
- GeoSyntec Consultants continues adjusting geometry of CELA cap to provide approximately 19,500 yd<sup>3</sup> additional capacity.
- Submittal reviewed for:
  - Corrugated metal pipe and flap gate (28QC18).
- Geo-Con weekly progress meeting held on 21 August.

17 to 23 August 1992, Weekly Field Report  
25 August 1992  
Page 3

## UNIT 2

- Separator pre-construction meeting held with Severson Environmental Services, Inc. on 20 August.
- Submittals reviewed for:
  - Submittal list;
  - 18 and 42 in. diameter pipe details; and
  - Various manholes.


\* \* \* \* \*

Copy to: David E. Grooms, ARCO  
Mike Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants



## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants 

**DATE:** 31 August 1992

**SUBJECT:** 24 to 30 August 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 24 to 30 August 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Areas, in addition to the five original areas, selected for treatment. Work being performed in level B protection.
- GeoSyntec Consultants completed adjustment of CELA cap geometry to provide approximately 19,500 yd<sup>3</sup> additional capacity. Drawings delivered to site on 25 and 26 August. All CELA grading being performed to new design elevations.
- Refinery Area G, dike area, excavated, backfilled with common fill, and seeded and mulched on 24 August.
- Post excavation sampling of Refinery Area A started on 26 August, continued on 27 August and completed on 28 August.
- Post excavation sampling of Refinery Area B started and completed on 25 August, with exception of three samples to be taken later

by shelby tubes at locations which are below water.

- Post excavation sampling of Refinery Area E started and completed on 25 August.
- Post excavation samples taken from Areas C, D and F only at those locations that the EPA representative wanted to obtain split samples; two samples each location. Remainder of samples will be obtained when sampling resumes.
- The three drums in the drum staging area at the north end of the CELA were sampled and inventoried on 29 August. Drum No. 74 contained empty bottles and personal protective equipment which were inventoried. Drum No. 83 (as designated on drum staging plan) was labelled as "84 Acetone; it contained approximately 1 ft of liquid, which was sampled. Drum No. 84 was labelled "84  $HNO_3$ "; bottom of the drum had corroded and the drum was empty.
- Gas vent stone delivered and stockpiled in staging area.
- High early strength cement for CELA stabilization delivered.
- Submittals reviewed for:
  - Submittal register (27SR01, Rev. 2 and 28SR01, Rev. 2);
  - Borrow source and compliance, topsoil (28QC02, Addendum 2);
  - Certificate of compliance, low permeability geosynthetic (28QC04, Addendum 4); and
  - Certificates of compliance, 60-mil VLDPE geomembrane (28QC04, Addendum 5).
- Geo-Con weekly progress meeting held on 28 August.

24 to 30 August 1992, Weekly Field Report  
31 August 1992  
Page 3

## UNIT 2

- Surface debris cleared from site and stockpiled at east edge of site.
- Severson site trailer delivered on 27 August and equipment trailer delivered on 28 August.
- Electric pole and transformer established on 28 August. Hookup to trailer(s) to be performed later.
- Submittals reviewed for:
  - Quality control daily report;
  - Constant diameter manholes;
  - Sampling plan; and
  - Work plan.
- Severson weekly progress meeting held on 27 August.

\* \* \* \* \*

Copy to: David E. Grooms, ARCO  
Mike Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

TO: Mr. Robert E. Ivy, ARCO

FROM: Roger B. North, P.E., GeoSyntec Consultants RBN

DATE: 4 September 1992

SUBJECT: 31 August to 6 September 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 31 August to 6 September 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Approximately 8,500 yd<sup>2</sup> completed to date. Work being performed in level B protection.
- CELA grading continues; south end of CELA close to final grade.
- Grading of CELA cap drainage channel started on 31 August at Station 26+50; working to south reached Station 18+00.
- Geo-Con mobilized geosynthetics crew and equipment to site on 31 August.
- Placement and compaction of traffic cap plug, approximately 4 ft wide, above slurry wall alignment started on 1 September at Station 26+50; working to south reached Station 21+10.

31 August to 6 September 1992, Weekly Field Report

4 September 1992

Page 2

- Excavation of slurry wall key trench started on 2 September at Station 26+50 using Caterpillar 416 backhoe with 1 ft bucket. Excavated approximately 30 ft; trench collapsed, would not remain open. Geo-Con abandoned excavation of key trench with backhoe; Case TF 300 trencher brought to site on 3 September.
- 42 in. diameter corrugated metal pipe and flap valve for culvert delivered on 1 September.
- High early strength cement for CELA stabilization delivered on 31 August and 1, 2 and 3 September.
- Submittal reviewed for geosynthetic and geomembrane installers SOQ (28WP03).
- Geo-Con weekly progress meeting held on 4 September.

## UNIT 2

- Perimeter fencing established, including signage and fencing up to center line of public road on south side of separator.
- Soil sampling along sewer by-pass alignment performed on 1 and 2 September, with EPA representatives present. 30 borings drilled, all to depth of 8 ft. Composite soil samples obtained from split-spoon samples at 0 to 2 ft, 2 to 4 ft, 4 to 6 ft, and 6 to 8 ft.
- Removed fence from east end of site and cleared area between 2 and 4 September.
- Second trailer delivered to site on 3 September and guardhouse

completed on 3 September.

- 42 in. diameter reinforced concrete by-pass pipe sections delivered on 4 September. One pipe section noted by GeoSyntec Consultants to be cracked along full length and rejected.
- Severson took sludge sample from southwest separator cell.
- Construction of temporary staging around and within separator from 31 August onwards.
- Gravel placed in support zone.
- Electric supply to site established on 4 September.
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
C. P. Sukow, GeoSyntec Consultants  
J. E. Brandes, GeoSyntec Consultants  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RB*

**DATE:** 18 September 1992

**SUBJECT:** 7 to 13 September 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 7 to 13 September 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Work being performed in level B protection. Previously stabilized area near Niagara Mohawk power pole excavated approximately 2 ft (0.6 m) during cap grading. \$ shelby tube samples taken on 9 September.
- CELA grading continues; south end of CELA close to final grade.
- Grading of CELA cap drainage channel continued on west side of CELA working towards south end of CELA.
- Placement and compaction of traffic cap plug, approximately 4 ft wide, above slurry wall alignment continued in sequence with channel preparation.
- Excavation of slurry wall key trench attempted on 9 September. Trench collapsed as excavation proceeded and would not remain stable. Alternate approach developed an approved using track-hoe excavating from CELA side of slurry wall.

- Gundseal and 60-mil VLDPE geomembrane underliner placed along west side of CELA. Placement started on 9 September. panels U-1 to U-22 Approximately 15,158 ft<sup>2</sup> (1,409 m<sup>2</sup>) placed from Station 20+95 to 25+80 entailing approximately 689 linear ft (210 m) of seam.
- High early strength cement for CELA stabilization delivered throughout week.
- Gas vent stone delivered and stored in staging area.
- Post excavation sampling around Refinery Area C restarted on 9 September and completed on 11 September.
- Post excavation sampling around Refinery Area D restarted on 11 September.
- Informal Geo-Con weekly progress meeting held on 11 September in ARCO trailer.

## UNIT 2

- East end of site cleared and fence installed beyond originally designated site boundary.
- All utilities established to site trailers except for phone lines.
- Removed fence from east end of site and cleared area between 2 and 4 September.
- Below grade structure revealed, on 10 September, near location of proposed manhole number 4.



- 42 in. diameter reinforced concrete by-pass pipe sections delivered on 11 September. Two previously delivered cracked pipe sections removed from site.
- Construction of roof structure over separator tanks started on 10 September. Plastic covering installed on 12 September.
- Emergency response meeting for separator and powerhouse on 11 September.
- Surface debris hauled from site to local landfill by LaForge K. S. Excavating Inc. on 12 September.
- Water truck delivered to site on 11 September.
- Submittals reviewed for:
  - Alarm for by-pass pump;
  - Septic tank;
  - Modutank and quickstor tanks additional data (2A);
  - QA/QC plan (8);
  - Sampling and analysis plan (10);
  - Office trailer (11);
  - Security plan (14); and
  - RECRA Environmental laboratory (15).
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
J. G. Fox, GeoSyntec Consultants  
C. P. Sukow, GeoSyntec Consultants  
J. E. Brandes, GeoSyntec Consultants  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E Brandes, GeoSyntec Consultants *JEB*

**DATE:** 19 September 1992

**SUBJECT:** 14 to 20 September 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 14 to 20 September 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Work being performed in level B protection. Shelby tube samples taken on 17 September in previously stabilized areas.
- CELA grading continues; south end of CELA at final grade.
- Grading of CELA cap drainage channel continued on west and south sides of CELA working towards east side of CELA.
- Placement and compaction of traffic cap plug, approximately 4 ft wide, above slurry wall alignment continued in sequence with channel preparation.
- Gundseal and 60-mil VLDPE geomembrane underliner placed along west and south sides of CELA. Placement of panels U-23 to U-48 started on 14 September and continued to 18 September. Approximately 14,980 ft<sup>2</sup> (1,392 m<sup>2</sup>) placed from Station 20+95 to 16+70 entailing approximately 792 linear ft (241m) of seam.

- High early strength cement for CELA stabilization delivered throughout week.
- Post excavation sampling around Refinery Area D continued on 14 September and completed on 16 September.
- Post excavation sampling around Refinery Area F restarted on 16 September and completed on 17 September.
- Post excavation sampling around Refinery Areas B and G restarted and completed on 17 September. This completes all Refinery Area post excavation sampling.
- Empire Soils Investigations Inc. arrive on 16 September and piezometer and monitoring well drilling begins on 17 September.
- 36 inch HDPE pipe place around power pole in CELA on 19 September
- Geo-Con weekly progress meeting held on 18 September.

## UNIT 2

- Decontamination pad built on 14 September.
- Phones established to site trailers on 16 September.
- Kick off meeting held on 14 September at ARCO trailer.
- Modutanks delivered on 15 September and assembly started on 16 September.
- Installed concrete plugs in separator inflow and out flow lines on 16 & 17 September with 4000 psi concrete.

- Plugged 16 inch diameter CMP from Current Controls to separator with air bag at up stream end.
- Track hoe delivered on 16 September.
- Temporary bypass pumping started on 16 September and will ~~continued~~ until permanent bypass is installed.  
*continue*
- Two monitoring wells near separator were decommissioned on 18 September as per Ebasco specifications.
- Submittals reviewed for:
  - Manhole frame and cover for manholes (16);
  - OSHA 40 hour training certificates (17);
  - Training certificates (18);
  - PVC waterstop type 4B (19);
  - Typ. 6 ft diameter manhole cast in place rebar details (20).
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
C. P. Sukow, GeoSyntec Consultants  
J. E. Brandes, GeoSyntec Consultants  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants JEB  
Collin P. Sukow, GeoSyntec Consultants CS

**DATE:** 26 September 1992

**SUBJECT:** 21 to 27 September 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 21 to 27 September 1992.

### UNIT 1

- Approximately 2.5 inches of rain accumulated on site between the morning of 21 September and afternoon of 22 September.
- Sedimentation pond at north end of CELA was enlarged on 22 September. Ponded water around site was pumped to sedimentation pond starting on 22 September.
- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Work being performed in level B protection. Shelby tube samples taken throughout week in stabilized areas.
- CELA grading continues; south end of CELA at final grade.
- Approximately 27,500 ft<sup>2</sup> (2,556 m<sup>2</sup>) of Polyfelt 7 oz. geotextile was deployed on 25 September.
- Gas vent stone was placed on south end of CELA Starting 25 September and continuing on 26 September. Approximately 2,340 tons of vent stone was placed on CELA.

- High early strength cement for CELA stabilization delivered throughout week.
- Received first shipment of Polyfelt drainage composite on 24 September.
- Empire Soils Investigations Inc. Start drilling P-2 on 21 September and continue to place one piezometer per day (P-1,P-4,P-6,P-5, respectively) completing P-5 on 25 September. Well casings, additional grouting, and developing wells will be done on a later date.
- Geo-Con weekly progress meeting held on 25 September.

## UNIT 2

- Heavy rains require additional bypass pumping on 22 September.
- Modutanks assembly completed on 23 September.
- Berms around decontamination pad were built on 21 September.
- TCLP analytical results for bypass composite samples received on 21 September.
- Project work stops for remainder of week on 24 September to allow EPA time to review sampling analytical results.
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Collin P. Sukow, GeoSyntec Consultants *CS*

**DATE:** 3 October 1992

**SUBJECT:** 28 September to 4 October 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 28 September to 4 October 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week. Water from sedimentation pond pumped to CELA for stabilization process. Work being performed in level B protection. Shelby tube samples taken throughout week in stabilized areas.
- CELA grading continues; south half of CELA at final grade.
- Approximately 141,719 ft<sup>2</sup> (13,171 m<sup>2</sup>) of Polyfelt 7 oz. geotextile was deployed throughout week for a total of 168,219 ft<sup>2</sup> (15,634 m<sup>2</sup>)
- Gas vent stone continued to be placed on south end of CELA throughout the week. Approximately 2,387 tons of vent stone was placed on CELA this week for a total of 5,727 tons to date.
- High early strength cement for CELA stabilization delivered throughout week.

- Continued to receive shipments of Polyfelt drainage composite.
- Empire Soils Investigations Inc. completed installation of piezometers in CELA and started installation of monitoring wells around perimeter of CELA. Well casings, additional grouting, and developing wells will be done on a later date.
- Gundseal and VLDPE was deployed on 29 September and 3 October for a total of 12,320 ft<sup>2</sup> (1,145 m<sup>2</sup>) of VLDPE this week and a total of 45,648 ft<sup>2</sup> (4,242 m<sup>2</sup>) to date.
- Slurry wall was restarted on 2 October at station 5+30 and completed on 3 October at station 2+70.
- No weekly progress meeting held this week.

## UNIT 2

- ARCO received EPA approval to proceed with Separator remediation on 28 September.
- Excavation for permanent bypass started on 29 September at proposed manhole 4 and proceeds past manhole 3. Excavated material being hauled to CELA. Village of Wellsville water line found during excavation for proposed manhole 4, area was backfilled. Manhole 4 was moved approximately 20 feet west to location of brick shed.
- Brick shed demolished and excavation for permanent bypass continued on 30 September.
- Construction of manhole 4 started on 30 September.
- Pumping of aqueous phase from Separator to Modutank started on 29 September; approximately ~~500,500~~ gal of liquid was pumped into

50,500  
RB  
4/MAR/93



28 September to 4 October 1992, Weekly Field Report  
4 October 1992  
Page 3

Modutank.

- Waste water treatment plant delivered on 1 October. The two carbon filters are unable to be sealed properly, so they are sent back to Purification Industries and will be replaced.
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Collin P. Sukow, GeoSyntec Consultants  
Roger B. North, P.E., GeoSyntec Consultants *RBN*.

**DATE:** 15 October 1992

**SUBJECT:** 5 to 11 October 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 5 to 11 October 1992.

### UNIT 1

- Stabilization of top 3 ft (0.9 m) of CELA material continued throughout week at north end of CELA. Work being performed in level B protection. Shelby tube sample taken at north end. Total area stabilized by 11 October approximately 13,900 yd<sup>2</sup> (11,620 m<sup>2</sup>).
- CELA grading continues; more than half of CELA to final grade.
- Approximately 86,655 ft<sup>2</sup> (8,053 m<sup>2</sup>) of Polyfelt 7 oz. geotextile (TS 700) deployed for a total of 269,454 ft<sup>2</sup> (25,042 m<sup>2</sup>)
- Gas vent stone placed on CELA throughout the week. Approximately 6,673 tons of vent stone placed for a total of 12,400 tons to date.
- Continued to receive shipments of Polyfelt drainage composite. Stored in SLA area at south end of CELA.

- Empire Soils Investigations Inc. installed monitoring wells MWR-2,3,4,5,6,8,9 and 10 around perimeter of CELA and placed outer casings on piezometers and monitoring wells already installed. Wells will be developed at a later date.
- Gundseal and VLDPE drainage channel underliner was deployed on 8 October for a total of 4,690 ft<sup>2</sup> (436 m<sup>2</sup>) of VLDPE this week and a total of 50,338 ft<sup>2</sup> (4,678 m<sup>2</sup>) to date.
- Geo-Con obtained shelby tubes from slurry wall at stations 5+00 and 3+80 on 6 October.
- GeoSyntec Consultants obtained shelby tubes from slurry wall at station 10+35 on 7 October.
- East drainage channel graded for underliner.
- Deployment of primary geotextile begun on 10 October from south end to top of first ridge.
- Results from VLDPE destructive samples 1-5 received; all passed.
- Results from geotextile destructive samples 1-6 received; all passed.
- No weekly progress meeting held this week.

## UNIT 2

- 42 in. diameter permanent by-pass constructed from manhole 4 to manhole 2. Material excavated from alignment hauled to CELA.
- By-pass pipe sections backfilled to spring line with gravel between manholes 2 and 4.

- Central Industries mobilized filter press equipment on 6 October. Filter press sludge treatment started on 8 October; first filter cake produced on 9 October. 29,472 gallons of sludge treated by 11 October.
- Filter plant treatment of aqueous phase started on 8 October.
- Excavated for manhole 1 on 10 October. During excavation the two separator inflow pipes were found to be vitreous pipes in poor condition; 24 and 10 in. diameter. The pipes were cut outside the limits of manhole 1 and PVC pipe was installed to temporarily connect the pipes into the chamber. The 10 in. pipe was largely plugged with soil and oily material.
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 2 November 1992

**SUBJECT:** 12 to 18 October 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 12 to 18 October 1992.

### UNIT 1

- No stabilization done this week.
- CELA grading continues on east and north sides of CELA.
- Secondary geotextile deployed on east side of CELA on 12 and 14 October, and primary geotextile was deployed on east side on 16 October. Approximately 133,726 ft<sup>2</sup> (12,428 m<sup>2</sup>) of Polyfelt 7 oz. geotextile (TS 700) deployed for a total of 403,180 ft<sup>2</sup> (37,470 m<sup>2</sup>)
- Gas vent stone placed on CELA throughout the week. Approximately 6,540 tons placed for a total of 18,940 tons to date.
- Placement of gas vent pipe begins on 13 October and continues throughout week.
- Continued to receive shipments of Tensar/Polyfelt drainage composite. Stored in SLA area at south end of CELA.
- Empire Soils Investigations Inc. installed monitoring wells MWR-

1,7 and 11 around perimeter of CELA. Monitoring well MWR-11 developed on 16 October.

- Gundseal and VLDPE drainage channel underliner was deployed on 15 October for a total of 4,400 ft<sup>2</sup> (409 m<sup>2</sup>) of VLDPE this week and a total of 54,738 ft<sup>2</sup> (5,087 m<sup>2</sup>) to date.
- Excavated for 42 in. diameter CMP culvert at north end of CELA on 13 October.
- Rip rap placed at both ends of excavation for 42 in. diameter CMP culvert on 14 October.
- Installed 42 in. diameter CMP culvert on 17 October.
- Geotextile destructive samples 5 and 6 sent for testing on 15 October.
- Two stone bridges across drainage channel on west side of CELA removed on 12 October.
- Sand placed over VLDPE underliner on 12 and 13 October.
- GeoSyntec Consultants' Geomechanics and Environmental Laboratory provided soil-bentonite backfill hydraulic conductivity result of  $3.7 \times 10^{-8}$  cm/sec from slurry wall at Station 10+35 on 15 October.
- Temporary ground-water holding pond excavated in SLA area on 17 October.
- Submittal reviewed for :
  - Proposed layout of gundseal and VLDPE (28WP04).
- No weekly progress meeting held this week.

- Survey of east dike performed on 15 and 16 October for Operation and Maintenance Plan for Genesee River channel.

## **UNIT 2, SEPARATOR**

- Approximately 900 gal. of oil pumped from Separator by Noco Energy Corp. and taken off site on 12 October.
- Approximately 23,400 gal. of aqueous phase pumped from Separator to modutank on 12 October.
- Approximately 9,100 gal. of aqueous phase pumped from below pumphouse to modutank on 13 October.
- Sampled treated aqueous phase at 4 locations in 30,000 gal. tank and made 1 composite sample.
- Sampled filter cake from 3 roll-offs, representing east, west, and center cells of north train, into 1 composite sample.
- Central Industries continued to pump and treat sludge. Approximately 31,930 gal. treated this week for a total of 61,402 gal. by 18 October.
- Exfiltration test on 42 in. diameter pipe between manholes 2 and 4 started on 12 October; inflatable plug failed and test was abandoned.
- Exfiltration test restarted on 15 October and completed on 16 October. Total average leakage of 166 gals/in. diameter/mile/day; acceptable result.
- Backfilling around 42 in. diameter pipe above spring line between manholes 2 and 4, with common fill started on 16 October. Fill placed in maximum 12 in. thick loose lifts and compacted with a

12 to 18 October 1992, Weekly Field Report  
2 November 1992  
Page 4

plate vibrator.

- No weekly progress meeting held this week.

## **UNIT 2, POWERHOUSE**

- Survey of powerhouse roof performed on 14 October by structural engineer, Roy R. Pederson, P.E., hired by OHM.
- Erection of security fence started.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, GeoSyntec Consultants



## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 4 November 1992

**SUBJECT:** 19 to 25 October 1992, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 19 to 25 October 1992.

### UNIT 1

- Temporary ground-water holding pond in SLA lined with 60-mil HDPE on 20 October.
- Sedimentation basin at north end CELA removed on 21 October.
- CELA grading continues on northeast and north sides of CELA.
- Secondary geotextile (TS700) deployed on CELA on 24 October to Q line; primary geotextile (TS700) was deployed on 19 and 20 October on east side of CELA and from K line to channel. See table below for quantities.
- Gas vent stone imported, stockpiled and spread on CELA throughout the week. See table below for quantities.
- Started deploying gundseal and VLDPE on CELA from gridline N510 towards south of CELA to gridline N360. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	5,929	25,062
Geotextile (TS700) (ft <sup>2</sup> )	38,340	487,037
Geotextile (TS700) (m <sup>2</sup> )	3,562	45,247
VLDPE in Channel (ft <sup>2</sup> )	0	30,138
VLDPE in Channel (m <sup>2</sup> )	0	2,800
Gundseal in CELA (ft <sup>2</sup> )	78,042	78,042
Gundseal in CELA (m <sup>2</sup> )	7,250	7,250
VLDPE in CELA (ft <sup>2</sup> )	83,754	83,754
VLDPE in CELA (m <sup>2</sup> )	7,781	7,781

- Shipment of Tensar/Polyfelt drainage composite received on 21 October. Stored in SLA area at south end of CELA.
- Backfilled 42 in. diameter CMP culvert at north end CELA on 19 October.
- Placed sand on VLDPE underliner on west side of CELA on 19 and 23 October.
- RMC Environmental Services was unable to validate Ceimic Corporation laboratory test results on Geo-Con's conformational samples taken in August and September from Refinery Areas A to G.
- No weekly progress meeting held this week.

- Inspection of east and west dikes performed on 21 October for Operation and Maintenance Plan for Genesee River channel.

## **UNIT 2, SEPARATOR**

- Completed forming manhole 1 and cast on 22 October.
- 42 in. diameter pipe backfilled with common fill above spring line between manholes 2 and 4 on 19 October. Backfilling around 18 in. diameter pipe above spring line between manholes 1 and 2 started on 20 October and continued throughout week. Fill placed in maximum 12 in. thick loose lifts and compacted with a plate vibrator.
- Central Industries continued to pump and treat sludge. See attached table for quantities.
- Replaced filters on filter plant and restarted treating aqueous phase on 20 October. Filter plant run continuously until 22 October when east 30,000 gal. tank filled. See attached table for quantities. Sampled treated aqueous phase at 4 locations in east 30,000 gal. tank on 29 October and made 1 composite sample. Represents second 30,000 gal. tankful of treated aqueous phase tested.
- Received analytical results for treated aqueous phase in west 30,000 gal. modutank on 23 October; acceptable for discharge to POTW. Represents first tank of treated aqueous phase acceptable for discharge.
- Started cleaning debris in separator at northeast cell on 20 October, and continues throughout week working west in north train. Work being performed in level C protection.

19 to 25 October 1992, Weekly Field Report  
4 November 1992  
Page 4

- No weekly progress meeting held this week.

## **UNIT 2, POWERHOUSE**

- Erection of security fence continued.
- No weekly progress meeting held this week.

\* \* \* \* \*

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER	
	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610
Volume of aqueous phase to POTW (gal.)	0	0
Volume sludge treated (gal.)	51,576	112,976
Weight filter-cake off-site (tons)	0	0
Volume filtrate produced (gal.)	Unknown	Unknown
Volume filtrate treated (gal.)	0	0
Volume filtrate to POTW (gal.)	0	0

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants JEB  
Roger B. North, P.E., GeoSyntec Consultants RB

**DATE:** 5 November 1992

**SUBJECT:** 26 October to 1 November, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 26 October to 1 November 1992.

### UNIT 1

- Preparation of underliner continued on northeast and north sides of CELA, including: grading, excavation of anchor trench, backfill of plug in traffic cap, excavation of key trench, deployment of VLDPE underliner and backfill of key trench. VLDPE laid on 29, 30 and 31 October and 1 November.
- Placed sand over underliner on 27 October.
- Deployment of Gundseal over sand stopped from 26 October. Gundseal will be deployed when water in sand layer has been controlled.
- CELA grading continued on northeast and north sides of CELA.
- Gas vent stone imported on 30 and 31 October and spread on CELA throughout the week. See table below for quantities.
- Secondary geotextile (TS700) and primary geotextile (TS700) deployed throughout week. See table below for quantities.

- Deployed gundseal and VLDPE on 26, 28, 30 and 31 October, southwards from gridline N360 to N220 (south end of CELA) and northwards from gridline N510 to N640. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	1,121	26,183
Geotextile (TS700) (ft <sup>2</sup> )	162,862	649,899
Geotextile (TS700) (m <sup>2</sup> )	15,130	60,378
VLDPE in Channel (ft <sup>2</sup> )	10,140	66,088
VLDPE in Channel (m <sup>2</sup> )	942	6,142
Gundseal in CELA (ft <sup>2</sup> )	100,045	178,087
Gundseal in CELA (m <sup>2</sup> )	9,298	16,551
VLDPE in CELA (ft <sup>2</sup> )	105,864	189,618
VLDPE in CELA (m <sup>2</sup> )	9,839	17,622

- Formed boots around gas vent riser pipes and other penetrations on 26, 27 and 28 October.
- Geotextile destructive samples 7 to 13 and geomembrane destructive samples 1 to 8 sent to laboratory for testing.
- Retesting of Geo-Con's Refinery Areas conformational samples completed by Law Environmental on 26 October. Indicated additional locations with arsenic concentrations above 25 ppm in Areas A, B, C, D and G.

- Additional conformational sampling performed in Areas A, B, C, D and G by GeoSyntec Consultants between 28 and 30 October. Samples sent to Law Environmental, Inc. for analysis. Results received on 30 October for some Area A samples indicate locations with arsenic concentrations above 25 ppm.
- No weekly progress meeting held this week.
- Submittals reviewed for :
  - Modifications to cold weather welding procedures (rejected);
  - Gundie letter about use of low pressure vehicle on gundseal;
  - Bedding borrow source compliance (28QC04, Addendum 17);
  - Gas vent stone permeability results (28QC04, Addendum 18); and
  - Submittal register update (28QC04, Revision 4).

## **UNIT 2, SEPARATOR**

- Hydrostatic pressure test on 18 in. diameter concrete pipe between manholes 1 and 2 started on 26 October and completed on 28 October. Leakage rate of 88 gal./in. diameter/mile/day over final 17 hours; acceptable result.
- Transported treated aqueous phase from west 30,000 gal. modutank to POTW on 27 October. See attached table for quantities.
- Treated aqueous phase from 27 to 29 October into west 30,000 gal. modutank. See attached table for quantities. Sampled treated aqueous phase at 4 locations in west 30,000 gal. modutank and made 1 composite sample. Represents third 30,000 gal. tankful of treated aqueous phase tested.
- 18,059 gal. of liquid (aqueous phase, 5,436 gal.; decontamination water and rainwater, 12,623 gal.) left in west 100,000 gal. modutank. Added 41,825 gal. filtrate from the east 100,000 gal. modutank into 18,059 gal. remaining in west 100,000 gal.



modutank.

- Received analytical results from east 30,000 gal. modutank on 30 October.; represents second tankful of treated aqueous phase acceptable for discharge to POTW.
- Central Industries continued to pump and treat sludge. See table below for quantities.
- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- Samples of roofing materials, taken by Asbestos Control Management, Inc. on 26 October from powerhouse roof, shown to contain asbestos.
- No weekly progress meeting held this week.

\* \* \* \* \*

## Attachment

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER		W/E 1 NOVEMBER	
	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360
Weight filter-cake off-site (tons)	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610
				by 29 Oct
Volume filtrate treated (gal.)	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *TEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 8 November 1992

**SUBJECT:** 2 to 8 November, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 2 to 8 November 1992.

### UNIT 1

- Temporary ground-water holding pond in SLA area filled to capacity on 3 November. Second temporary ground-water holding pond excavated, in SLA area to south of existing pond, on 6 and 7 November. Liner placed in pond on 7 and 8 November, and water pumped from north end of CELA to pond starting 8 November.
- Underliner preparation prevented due to ponding of water at north and northwest end of CELA.
- CELA grading continued on north slope of CELA.
- Gas vent stone imported on 2 November and stockpiled material spread on CELA throughout the week. See table below for quantities.
- Secondary geotextile (TS700) and primary geotextile (TS700) deployed throughout week in northeast and north parts CELA. See table below for quantities.

- Deployed gundseal and VLDPE on 3, 4 and 5 November, northwards from gridline N640 to N770. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	680	26,863
Geotextile (TS700) (ft <sup>2</sup> )	112,870	762,769
Geotextile (TS700) (m <sup>2</sup> )	10,490	70,889
VLDPE in Channel (ft <sup>2</sup> )	0	66,088
VLDPE in Channel (m <sup>2</sup> )	0	6,142
Gundseal in CELA (ft <sup>2</sup> )	74,175	252,262
Gundseal in CELA (m <sup>2</sup> )	6,894	23,444
VLDPE in CELA (ft <sup>2</sup> )	65,032	254,550
VLDPE in CELA (m <sup>2</sup> )	6,044	23,657

- Results for geotextile destructive samples 7 to 13 and geomembrane destructive samples 1 to 8 received; all results satisfactory.
- Geo-Con reported inadequate capacity within CELA to accommodate neither ungraded on site soils, nor Refinery Area soils to be excavated. Decision made on 2 November to: (i) construct north end of CELA at 9 percent slope from perimeter channel and 3 percent from last gas vent ridge; and (ii) raise north edge of CELA 2 ft, from approximately E700 westwards, by increasing length of inside slope of perimeter drainage channel.

- Started staging geocomposite drainage net rolls on south end CELA.
- 4 in. diameter corrugated slotted PVC pipe installed in sand layer along alignment of perimeter channel on 6 and 7 November between Stations 7+50 and 18+00. Ends of pipe lapped over top of slurry wall into gravel sumps in CELA.
- Three drums, numbered 74, 83 and 84 transported off-site on 5 November to Model City, New York, and West Carrollton, Ohio.
- Additional conformational soil samples taken from Refinery Areas A (Current Controls), C (powerhouse) and G (dike area), and sent to Law Environmental for analysis.
- Results received from Law Environmental indicating additional locations in Refinery Areas A (Current Controls), B (end swale), C (powerhouse), D (Otis Eastern) and G (dike area) with arsenic concentrations above 25 ppm.
- Cleared trees from east side Area A on 2 and 3 November.
- Excavated soils from Area A on 4 and 5 November, Area C on 3 and 5 November and Area D on 3 November, and transported soils to CELA. Excavated locations backfilled with common fill in Area A and gravel in Areas C and D. Excavation terminated when CELA considered to be at full capacity.
- No weekly progress meeting held this week.
- Aerial photographs taken of site on 3 November.

## UNIT 2, SEPARATOR

- Transport treated aqueous phase from east 30,000 gal. modutank to POTW on 2 November. See attached table for quantities.
- Started treating mixture of aqueous phase, filtrate and extraneous water from west 100,000 gal. modutank to east 30,000 gal. modutank on 2 November. Completed filling east 30,000 gal. modutank on 4 November. See attached table for quantities. Sampled treated water at 4 locations in east 30,000 gal. modutank and made 1 composite sample. Represents fourth 30,000 gal. tankful of treated water tested.
- Received analytical results from west 30,000 gal. modutank on 6 November; represents third second tankful of treated aqueous phase acceptable for discharge to POTW.
- Skimmed free floating oil from surface of filtrate in east 100,000 gal. modutank throughout week using sorbents. Used sorbents placed in drums for off-site disposal.
- Central Industries continued to pump and treat sludge. See table below for quantities.
- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- Mobilized vacuum "Guzzler" truck on 2 November to remove material, such as rocks and small debris, from bottom of Separator cells which can neither be removed by the filter press pump nor steam cleaned in place. Free draining sludge decanted from vacuum truck into filter press mix container and debris placed in roll-off. Work continued through week.

2 to 8 November 1992, Weekly Field Report  
8 November 1992  
Page 5

- Completed backfilling around manhole 1 on 3 November.
- No weekly progress meeting held this week.

#### UNIT 2, POWERHOUSE

- No site activity.
- No weekly progress meeting held this week.

\* \* \* \* \*

#### Attachment

Copy to: D. E. Grooms, ARCO  
M. Hrywnak, COE  
Dr. J.F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER		W/E 1 NOVEMBER		W/E 8 NOVEMBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	<del>34,384</del>	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610	Unknown	140,999
				by 29 Oct		by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12623	12623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12623	12623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

49,120  
JEB  
16 Mar 93



## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO  
**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
**DATE:** 16 November 1992  
**SUBJECT:** 9 to 15 November, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 9 to 15 November 1992.

### UNIT 1

- Jim Devine, Geo-Con liner foreman, replaced by Scott Cosgrove on 11 November.
- Water pumped from CELA to temporary holding pond in SLA.
- Backfilling of anchor trench started on 10 November.
- CELA grading continued on north slope of CELA.
- Graded subgrade near northwest corner for underliner and excavated along slurry wall alignment for traffic cap plug.
- Gas vent stone imported on 10, 12 and 13 November and stockpiled material spread on CELA throughout the week. See table below for quantities.
- Gas vent pipes installed along northernmost ridge on 10 November.
- Secondary geotextile (TS700) and primary geotextile (TS700) deployed on 11 and 15 November in northeast and north parts CELA. See table below for quantities.

- Removed hydrated gundseal from west drainage channel and replaced with new gundseal on 14 November. No gundseal or VLDPE deployed on CELA. 124 linear feet of VLDPE deployed on 10 November at southernmost end of CELA to lap into anchor trench. See table below for quantities.
- Geocomposite drainage layer deployed on 10, 11, 13, 14 and 15 November from south end CELA to approximately gridline N470. See table below for quantities.
- Common fill placement started on 11 November at south end of CELA. Delivery halted after approximately 9 loads delivered by Baker's Of Jericho Hill Inc. from Babbitt pit due to large quantity of material above 3 in. size. Additional source of common fill, Wayne Gravel Products Inc. Faulkner mine, Route 44, Ceres, Pennsylvania, approved on 11 November. Common fill placement resumed on 13 November from both Babbitt pit and Faulkner mine. South end of CELA completed to approximately gridline N460. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	1,291	28,155
Geotextile (TS700) (ft <sup>2</sup> )	115,080	877,849
Geotextile (TS700) (m <sup>2</sup> )	10,691	81,555
VLDPE in Channel (ft <sup>2</sup> )	0	66,088
VLDPE in Channel (m <sup>2</sup> )	0	6,142
Gundseal in CELA (ft <sup>2</sup> )	29,440	281,702
Gundseal in CELA (m <sup>2</sup> )	2,735	26,171
VLDPE in CELA (ft <sup>2</sup> )	17,050	271,700

Item	Quantity This Week	Cumulative Quantity
VLDPE in CELA (m <sup>2</sup> )	1,584	25,242
Geocomposite Layer (ft <sup>2</sup> )	91,200	91,200
Geocomposite Layer (m <sup>2</sup> )	8,473	8,473
Common Fill (tons)	10,345	10,345

- Geomembrane destructive samples 9 to 17 taken on 12 November; results received verbally on 15 November. All results satisfactory.
- Received results, on 11 November, of hydraulic conductivity test performed by GeoSyntec Consultants on traffic cap material from Station 6+00. Hydraulic conductivity of  $8.2 \times 10^{-8}$  cm/sec satisfies specification requirement of permeability less than  $1 \times 10^{-5}$  cm/sec.
- Results received from Law Environmental on 10 November indicating additional locations in Refinery Areas C (powerhouse) and G (dike area) with arsenic concentrations above 25 ppm.
- Additional conformational soil samples taken on 10 November from Refinery Areas B (end swale), C (powerhouse), D (Otis Eastern) and G (dike area), and sent to Law Environmental for analysis.
- No weekly progress meeting held this week.
- Monthly progress meeting held on-site on 12 November.

## UNIT 2, SEPARATOR

- Received analytical results from east 30,000 gal. modutank on 13 November; represents fourth tankful of treated aqueous phase acceptable for discharge to POTW.
- Discharged, into POTW sanitary sewer line, treated aqueous phase from west 30,000 gal. modutank on 9 November and treated aqueous phase, filtrate and extraneous water from east 30,000 gal. modutank on 13 November. See attached table for quantities.
- Started treating filtrate from west 100,000 gal. modutank to west 30,000 gal. modutank on 9 November. Completed filling west 30,000 gal. modutank on 12 November. Treated filtrate found to have pH of approximately 5 on 12 November. Retreatment of filtrate from west 30,000 gal. modutank to east 30,000 gal. modutank started on 13 November. See attached table for quantities.
- Central Industries continued to pump and treat sludge. See table below for quantities.
- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- Continued to use vacuum "Guzzler" truck throughout week to remove material, such as rocks and small debris, from bottom of Separator cells which can neither be removed by the filter press pump nor steam cleaned in place. Free draining sludge decanted from vacuum truck into filter press mix container and debris placed in roll-off.
- Hydroblasting unit mobilized to site on 10 November. Trial hydroblasting of Separator walls performed on 11 November. Severson requested ARCO consider use of sand-blasting as an alternate cleaning method. Sand-blasting trial performed on 12 and 13 November.

- No weekly progress meeting held this week.
- Monthly progress meeting held on-site on 12 November.

## UNIT 2, POWERHOUSE

- Load testing of powerhouse roof started on 11 November and completed on 13 November. A 1000 lb concrete block suspended from a crane was placed at the center of roof panels. Testing supervised by engineers from E & M Engineers and Surveyors. Panels which neither deflected excessively nor collapsed were considered safe. Roof areas above turbine room and high pressure boiler room/fan floor considered safe with the exception of a few panels in both areas and roof areas above the low pressure boiler area considered unsafe.
- No weekly progress meeting held this week.
- Monthly progress meeting held on-site on 13 November. OHM instructed by ARCO to demobilize from site while ARCO considers remediation options.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
J. E. Brandes, GeoSyntec Consultants  
J. G. Fox, P.G., GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER		W/E 1 NOVEMBER		W/E 8 NOVEMBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	<del>34,384</del>	<del>196,480</del>
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610	Unknown	140,999
				by 29 Oct		by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12623	12623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12623	12623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

49,120  
JEB  
16/mar/93

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000
Volume aqueous phase treated (gal.)	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000
Volume sludge treated (gal.)	44,208	240,688
Weight filter-cake off-site (tons)	0	0
Volume filtrate produced (gal.)	Unknown	193,875
		by 15 Nov
Volume filtrate treated (gal.)	25,451	33,727
Volume filtrate to POTW (gal.)	8,276	8,276
Volume extraneous water present (gal.)	0	0
Volume extraneous water treated (gal.)	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 22 November 1992

**SUBJECT:** 16 to 22 November, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 16 to 22 November 1992.

### UNIT 1

- Water pumped from CELA to temporary holding pond in SLA.
- Grading of CELA subgrade continued on northwest slope of CELA. Grading completed on 21 November.
- Traffic cap plug near northwest corner of CELA placed on 20 November. This completes traffic cap plug.
- Gas vent stone imported on 19, 20 and 21 November and spread on CELA throughout the week. See table below for quantities.
- Primary geotextile (TS700) deployed on 17, 18, 20, and 21 November in north parts CELA. Secondary geotextile (TS1000) deployed on 20 and 21 November in northwest part of CELA. This completes deployment of secondary geotextile. See table below for quantities.
- Deployed gundseal and VLDPE on 19, 20, and 21 November.
- Deployed underliner at northwest end of CELA on 19, 20 November.



This completes installation of underliner. See table below for quantities.

- Geocomposite drainage layer deployed on 16, 17, 18, and 22 November from approximately gridline N470 to approximately gridline N560. See table below for quantities.
- Common fill placed on 16, 17, 19, and 20 November at south end of CELA. Common fill hauled by Baker's of Jericho Hill Inc. from Babbitt pit, Wellsville. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	1,394	29,549
CELA Geotextile (TS700) (ft <sup>2</sup> )	157,650	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	14,646	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	18,200	18,200
CELA Geotextile (TS1000) (m <sup>2</sup> )	1,691	1,691
VLDPE in Channel (ft <sup>2</sup> )	8,865	83,845
VLDPE in Channel (m <sup>2</sup> )	824	7,792
Gundseal in CELA (ft <sup>2</sup> )	84,490	366,192
Gundseal in CELA (m <sup>2</sup> )	7,849	34,019
VLDPE in CELA (ft <sup>2</sup> )	89,254	356,994
VLDPE in CELA (m <sup>2</sup> )	8,295	33,178
Geocomposite Layer (ft <sup>2</sup> )	79,800	171,000
Geocomposite Layer (m <sup>2</sup> )	7,413	15,886
Common Fill (tons)	10,539	21,166

- Geomembrane destructive samples 18 to 21, and 23 taken on 16

November; results received on 17 November. All results satisfactory. Geomembrane destructive samples 22, and 24 to 30 taken on 21 November.

- 2 shelby tubes pushed in slurry wall at station 0+00 on 17 November and 2 shelby tubes pushed in traffic cap at station 28+00 on 20 November by GeoSyntec Consultants.
- Received data packages (11 volumes) from Law Environmental Inc. for Refinery Surface Soil Cleanup (RSSC) samples taken by Geo-Con.
- Received validation report from RMC Environmental Services Inc. validating Law Environmental data package.
- Submittals reviewed for:
  - Post excavation sampling results (28SA02, Addendum 2)
  - Post excavation sampling results (28SA02, Addendum 3)
  - Common fill borrow source and compliance tests Wayne gravel products (28QC04, Addendum 24)
- No weekly progress meeting held this week.

## UNIT 2, SEPARATOR

- Added caustic to east 30,000 gal. modutank to raise pH to approximately 7 before sampling on 17 November. Sampled east 30,000 gal. modutank at 4 locations and made 1 composite sample. Represents fifth 30,000 gal. tankful of treated water tested.
- Cleaned west 30,000 gal. modutank on 17 November. Started treating filtrate from west 100,000 gal. modutank to west 30,000 gal. modutank on 18 November. Problems with the treatment plant developed on 19 November, stopping treatment of filtrate.
- Skimmed oil from top of east 100,000 gal. modutank and placed in 55 gal. drums on 19 November.
- Central Industries continued to pump and treat sludge. See table

below for quantities. Roll-off boxes filled with filter cake during week stored inside perimeter fence at Powerhouse.

- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- Continued to use vacuum "Guzzler" truck throughout week to remove material, such as rocks and small debris, from bottom of Separator cells which can neither be removed by the filter press pump nor steam cleaned in place. Free draining sludge decanted from vacuum truck into filter press mix container and debris placed in roll-off.
- Sand-blasting of Separator walls continued throughout week. Installed polyethylene around outside of Separator to prevent fugitive sand-blasting dust. Work being performed in level B. Used sand removed from Separator by vacuum truck and placed in roll-off box for off-site disposal.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- Fence erection on east side of Powerhouse.
- OHM prepares to demobilize.
- No weekly progress meeting held this week.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, P.G., GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER		W/E 1 NOVEMBER		W/E 8 NOVEMBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	<del>34,384</del>	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610	Unknown	140,999
				by 29 Oct		by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12623	12623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12623	12623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

49,120  
JEB  
16/mar/93

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000
Volume sludge treated (gal.)	44,208	240,688	38,068	278,756
Weight filter-cake off-site (tons)	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846
		by 15 Nov		
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *JEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 3 December 1992

**SUBJECT:** 23 to 29 November, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 23 to 29 November 1992.

### UNIT 1

- Water samples taken from temporary ground-water holding ponds in SLA area on 24 November to test against POTW discharge criteria.
- Gas vent stone imported on 23, 24 and 25 November and spread on northwest corner of CELA. Gas vent stone layer completed on 25 November. See table below and attachment for quantities.
- Deployed gundseal and 60-mil thick VLDPE geomembrane on CELA on 24 November; approximately placed to gridline N1100 on east of gridline E650, and to gridline N900 on west of gridline E650. See table below and attachment for quantities.
- Geocomposite drainage layer deployed on 23, and 24 November. See table below and attachment for quantities.
- Previously stockpiled common fill spread on 24 November. See table below and attachment for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	1,060	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	0	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0	18,200
CELA Geotextile (TS1000) (m <sup>2</sup> )	0	1,691
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	36,000	379,707
Gundseal in CELA (m <sup>2</sup> )	3,346	35,289
VLDPE in CELA (ft <sup>2</sup> )	36,960	393,954
VLDPE in CELA (m <sup>2</sup> )	3,435	36,600
Geocomposite Layer (ft <sup>2</sup> )	91,770	262,770
Geocomposite Layer (m <sup>2</sup> )	8,529	24,421
Common Fill (tons)	0	21,166

- Boot details around pipe penetrations through CELA cap continued.
- Received results for geomembrane destructive samples 22, and 24 to 30 on 25 November. All results satisfactory.
- Received, on 23 November, RMC Environmental Services validation report of Law Environmental analytical results for Refinery surface soil samples from Areas A to G, obtained by Geo-Con in September. Conformational Sampling Program report sent to EPA and NYDEC on 23 November.
- No weekly progress meeting held this week.

## UNIT 2, SEPARATOR

- Filter treatment plant fixed on 23 November. Treatment of filtrate from west 100,000 gal. modutank to west 30,000 gal. modutank resumed on 23 November. Completed filling west 30,000 gal. modutank on 24 November and took 1 composite sampled on 24 November. Represents sixth 30,000 gal. tankful of treated water tested. See attached table for quantities.
- Skimmed oil from top of east 100,000 gal. modutank and placed in 55 gal. drums on 23 and 24 November.
- Central Industries completed sludge treatment on 23 November. Roll-off boxes filled with filter cake during week stored inside perimeter fence at powerhouse. See table below for quantities.
- Central Industries started decontaminating and demobilizing filter press on 23 November.
- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- Sand-blasting of Separator walls and floors continued. Work being performed in level B. Used sand removed from Separator by vacuum truck and placed in roll-off box for off-site disposal.
- Vacuum "Guzzler" truck used to remove from separator: (i) material, such as sludge covered rocks and small debris, which could neither be removed by filter press pump nor steam cleaned in place; and (ii) sand blasting waste. Free draining sludge decanted from vacuum truck into filter press mix container. Sludge covered rocks and small debris placed in 1 roll-off and sand blasting waste placed in 1 roll-off.
- No weekly progress meeting held this week.



**UNIT 2, POWERHOUSE**

- Fence erection on east side of powerhouse completed.
- OHM completes demobilization.
- No weekly progress meeting held this week.

\* \* \* \* \*

**Attachment**

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, P.G., GeoSyntec Consultants  
A. S. Kositsky, GeoSyntec Consultants

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNDSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Sep		0		0		0		0		0		0		0		0
09-Sep		0		0		0		0	145	145	3,190	3,190	1,428	1,428		0
10-Sep		0		0		0		0	128	273	2,816	6,006		1,428		0
11-Sep		0		0		0		0		273		6,006		1,428		0
12-Sep		0		0		0		0	416	689	9,152	15,158		1,428		0
13-Sep		0		0		0		0		689		15,158		1,428		0
14-Sep		0		0		0		0	96	785	2,112	17,270		1,428		0
15-Sep		0		0		0		0	224	1,009	4,928	22,198	1,920	3,348		0
16-Sep		0		0		0		0		1,009		22,198		3,348		0
17-Sep		0		0		0		0	119	1,128	2,982	25,180	900	4,248		0
18-Sep		0		0		0		0	242	1,370	5,450	30,630	1,584	5,832		0
19-Sep		0		0		0		0		1,370		30,630		5,832		0
20-Sep		0		0		0		0		1,370		30,630		5,832		0
21-Sep		0		0		0		0		1,370		30,630		5,832		0
22-Sep		0		0		0		0		1,370		30,630		5,832		0
23-Sep		0		0		0		0		1,370		30,630		5,832		0
24-Sep		0		0		0		0		1,370		30,630		5,832		0
25-Sep		0	18,000	18,000		0		0		1,370		30,630		5,832		0
26-Sep		0		18,000		0		0		1,370		30,630		5,832		0
27-Sep		0		18,000		0		0		1,370		30,630		5,832		0
28-Sep		0	20,700	38,700		0		0		1,370		30,630		5,832		0
29-Sep	3,900	3,900		38,700		0		0	210	1,580	4,620	35,250		5,832		0
30-Sep		3,900	26,919	65,619		0		0		1,580		35,250		5,832		0
01-Oct	2,520	6,420	37,800	103,419		0		0		1,580		35,250		5,832		0
02-Oct	3,600	10,020	54,000	157,419		0		0		1,580		35,250		5,832		0
03-Oct	720	10,740	10,800	168,219		0		0	350	1,930	7,700	42,950	3,961	9,793		0
04-Oct		10,740		168,219		0		0		1,930		42,950		9,793		0
05-Oct	1,080	11,820	16,200	184,419		0		0		1,930		42,950		9,793		0
06-Oct	2,899	14,719	43,485	227,904		0		0		1,930		42,950		9,793		0
07-Oct	1,798	16,517	26,970	254,874		0		0		1,930		42,950		9,793		0

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNDSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Oct		16,517		254,874		0		0	213	2,143	8,690	51,640	4,888	14,681		0
09-Oct		16,517		254,874		0		0		2,143		51,640		14,681		0
10-Oct	3,132	19,649	46,980	301,854		0		0		2,143		51,640		14,681		0
11-Oct		19,649		301,854		0		0		2,143		51,640		14,681		0
12-Oct	1,349	20,998	20,235	322,089		0		0		2,143		51,640		14,681		0
13-Oct		20,998		322,089		0		0		2,143		51,640		14,681		0
14-Oct	2,854	23,852	42,810	364,899		0		0		2,143		51,640		14,681		0
15-Oct		23,852		364,899		0		0	200	2,343	4,400	56,040	2,400	17,081		0
16-Oct	1,700	25,552	25,500	390,399		0		0		2,343		56,040		17,081		0
17-Oct	4,361	29,913	65,417	455,816		0		0		2,343		56,040		17,081		0
18-Oct		29,913		455,816		0		0		2,343		56,040		17,081		0
19-Oct	1,556	31,469	23,340	479,156		0		0		2,343		56,040		17,081		0
20-Oct	100	31,569	1,500	480,656		0		0		2,343		56,040		17,081	7,542	7,542
21-Oct		31,569		480,656		0		0		2,343		56,040		17,081		7,542
22-Oct		31,569		480,656		0		0		2,343		56,040		17,081	33,000	40,542
23-Oct		31,569		480,656		0		0		2,343		56,040		17,081	30,000	70,542
24-Oct	900	32,469	13,500	494,156		0		0		2,343		56,040		17,081	7,500	78,042
25-Oct		32,469		494,156		0		0		2,343		56,040		17,081		78,042
26-Oct	927	33,396	13,905	508,061		0		0		2,343		56,040		17,081	19,035	97,077
27-Oct	1,337	34,733	20,057	528,118		0		0		2,343	4,400	60,440	3,000	20,081	3,000	100,077
28-Oct	615	35,348	9,225	537,343		0		0		2,343		60,440		20,081	45,000	145,077
29-Oct	5,521	40,869	77,420	614,763		0		0	200	2,543	4,400	64,840	4,000	24,081		145,077
30-Oct	2,157	43,026	32,355	647,118		0		0	179	2,722	3,940	68,780	2,285	26,366	15,000	160,077
31-Oct	300	43,326	4,500	651,618		0		0	182	2,904	4,000	72,780	1,000	27,366	8,725	168,802
01-Nov		43,326		651,618		0		0	100	3,004	2,200	74,980		27,366		168,802
02-Nov		43,326		651,618		0		0		3,004		74,980		27,366		168,802
03-Nov		43,326		651,618		0		0		3,004		74,980		27,366	33,000	201,802
04-Nov	1,200	44,526	18,000	669,618		0		0		3,004		74,980		27,366	16,980	218,782
05-Nov	408	44,934	6,120	675,738		0		0		3,004		74,980		27,366	13,695	232,477
06-Nov	4,267	49,201	64,000	739,738		0		0		3,004		74,980		27,366		232,477

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

[illegible]

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
28-Jul		0		0		0		0		0		0
29-Jul		0		0		0		0		0		0
30-Jul		0		0		0		0		0		0
31-Jul		0		0		0		0		0		0
01-Aug		0		0		0		0		0		0
02-Aug		0		0		0		0		0		0
03-Aug		0		0		0		0		0		0
04-Aug		0		0		0		0		0		0
05-Aug		0		0		0		0		0		0
06-Aug		0		0		0		0		0	670	670
07-Aug		0		0		0		0		0	971	1,641
08-Aug		0		0		0		0		0		1,641
09-Aug		0		0		0		0		0		1,641
10-Aug		0		0		0		0		0	628	2,269
11-Aug		0		0		0		0		0	441	2,710
12-Aug		0		0		0		0		0	152	2,862
13-Aug		0		0		0		0		0		2,862
14-Aug		0		0		0		0		0		2,862
15-Aug		0		0		0		0		0		2,862
16-Aug		0		0		0		0		0		2,862
17-Aug		0		0		0		0		0		2,862
18-Aug		0		0		0		0		0	703	3,564
19-Aug		0		0		0		0		0	524	4,088
20-Aug		0		0		0		0		0	369	4,458
21-Aug		0		0		0		0		0	556	5,013
22-Aug		0		0		0		0		0		5,013
23-Aug		0		0		0		0		0		5,013
24-Aug		0		0		0		0		0	402	5,415
25-Aug		0		0		0		0		0		5,415
26-Aug		0		0		0		0		0		5,415

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
27-Aug		0		0		0		0		0		5,415
28-Aug		0		0		0		0		0		5,415
29-Aug		0		0		0		0		0		5,415
30-Aug		0		0		0		0		0		5,415
31-Aug		0		0		0		0		0		5,415
01-Sep		0		0		0		0		0		5,415
02-Sep		0		0		0		0		0		5,415
03-Sep		0		0		0		0		0		5,415
04-Sep		0		0		0		0		0		5,415
05-Sep		0		0		0		0		0		5,415
06-Sep		0		0		0		0		0		5,415
07-Sep		0		0		0		0		0		5,415
08-Sep		0		0		0		0		0	121	5,536
09-Sep		0		0		0		0		0		5,536
10-Sep		0		0		0		0		0		5,536
11-Sep		0		0		0		0		0		5,536
12-Sep		0		0		0		0		0		5,536
13-Sep		0		0		0		0		0		5,536
14-Sep		0		0		0		0		0		5,536
15-Sep		0		0		0		0		0		5,536
16-Sep		0		0		0		0		0		5,536
17-Sep		0		0		0		0		0		5,536
18-Sep		0		0		0		0		0		5,536
19-Sep		0		0		0		0		0		5,536
20-Sep		0		0		0		0		0		5,536
21-Sep		0		0		0		0		0		5,536
22-Sep		0		0		0		0		0		5,536
23-Sep		0		0		0		0		0		5,536
24-Sep		0		0		0		0		0		5,536
25-Sep		0		0		0		0		0		5,536

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
26-Sep		0		0		0		0		0		5,536
27-Sep		0		0		0		0		0		5,536
28-Sep		0		0		0		0		0		5,536
29-Sep		0		0		0		0		0		5,536
30-Sep		0		0		0		0		0	457	5,992
01-Oct		0		0		0		0		0	709	6,701
02-Oct		0		0		0		0		0	622	7,323
03-Oct		0		0		0		0		0	856	8,178
04-Oct		0		0		0		0		0		8,178
05-Oct		0		0		0		0		0	784	8,962
06-Oct		0		0		0		0		0	809	9,771
07-Oct		0		0		0		0		0	871	10,642
08-Oct		0		0		0		0		0	607	11,249
09-Oct		0		0		0		0		0	1,154	12,403
10-Oct		0		0		0		0		0	928	13,331
11-Oct		0		0		0		0		0		13,331
12-Oct		0		0		0		0		0	1,197	14,527
13-Oct		0		0		0		0		0	1,434	15,961
14-Oct		0		0		0		0		0	911	16,872
15-Oct		0		0		0		0		0	934	17,805
16-Oct		0		0		0		0		0	1,328	19,133
17-Oct		0		0		0		0		0	738	19,871
18-Oct		0		0		0		0		0		19,871
19-Oct		0		0		0		0		0	2,025	21,896
20-Oct	431	431	9,482	9,482		0		0		0	1,621	23,516
21-Oct		431		9,482		0		0		0	1,546	25,062
22-Oct	1,680	2,111	36,960	46,442		0		0		0		25,062
23-Oct	1,396	3,507	30,712	77,154		0		0		0		25,062
24-Oct	300	3,807	7,040	84,194		0		0		0		25,062
25-Oct		3,807		84,194		0		0		0		25,062

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
26-Oct	1,097	4,904	24,134	108,328		0		0		0		25,062
27-Oct	200	5,104		108,328		0		0		0		25,062
28-Oct	2,089	7,193	45,958	154,286		0		0		0		25,062
29-Oct	374	7,567	8,228	162,514		0		0		0		25,062
30-Oct	494	8,061	10,868	173,382		0		0		0	544	25,606
31-Oct	558	8,619	12,276	185,658		0		0		0	577	26,183
01-Nov		8,619		185,658		0		0		0		26,183
02-Nov		8,619		185,658		0		0		0	681	26,863
03-Nov	1,752	10,371	38,544	224,202		0		0		0		26,863
04-Nov	608	10,979	13,376	237,578		0		0		0		26,863
05-Nov	596	11,575	13,112	250,690		0		0		0		26,863
06-Nov		11,575		250,690		0		0		0		26,863
07-Nov		11,575		250,690		0		0		0		26,863
08-Nov		11,575		250,690		0		0		0		26,863
09-Nov	651	12,226	14,322	265,012		0		0		0		26,863
10-Nov	124	12,350	2,728	267,740	1,810	1,810	11,400	11,400		0	617	27,481
11-Nov		12,350		267,740	7,510	9,320	47,310	58,710	304	304		27,481
12-Nov		12,350		267,740		9,320		58,710		304	584	28,064
13-Nov		12,350		267,740	1,357	10,677	8,550	67,260	3,986	4,290	91	28,155
14-Nov		12,350		267,740	3,619	14,296	22,800	90,060	4,167	8,457		28,155
15-Nov		12,350		267,740	181	14,477	1,140	91,200	2,170	10,627		28,155
16-Nov		12,350		267,740	3,619	18,096	22,800	114,000	2,653	13,280		28,155
17-Nov		12,350		267,740	4,705	22,801	29,640	143,640	904	14,184		28,155
18-Nov		12,350		267,740	1,719	24,520	10,830	154,470		14,184		28,155
19-Nov	2,132	14,482	43,054	310,794		24,520		154,470	3,406	17,591	515	28,670
20-Nov	840	15,322	18,480	329,274		24,520		154,470	3,575	21,166	364	29,034
21-Nov	420	15,742	9,240	338,514		24,520		154,470		21,166	243	29,277
22-Nov	840	16,582	18,480	356,994	2,624	27,144	16,530	171,000		21,166		29,549
23-Nov		16,582		356,994	6,786	33,930	42,750	213,750		21,166	272	29,822
24-Nov	1,680	18,262	36,960	393,954	4,705	38,635	29,640	243,390		21,166	273	30,095



MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
25-Nov		18,262		393,954		38,635	19,380	262,770		21,166	273	30,095
26-Nov		18,262		393,954		38,635		262,770		21,166		30,095
27-Nov		18,262		393,954		38,635		262,770		21,166		30,095
28-Nov		18,262		393,954		38,635		262,770		21,166		30,095
29-Nov		18,262		393,954		38,635		262,770		21,166		30,095
30-Nov	1,680	19,942	36,960	430,914	2,714	41,349	17,100	279,870	2,237	23,403		30,095

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 WEEK	OCTOBER TOTAL	W/E 11 WEEK	OCTOBER TOTAL	W/E 18 WEEK	OCTOBER TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 WEEK	OCTOBER TOTAL	W/E 1 WEEK	NOVEMBER TOTAL	W/E 8 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	2,456	278,756
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants  
Roger B. North, P.E., GeoSyntec Consultants

**DATE:** 8 December 1992

**SUBJECT:** 30 November to 6 December, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 30 November to 6 December, 1992:

### UNIT 1

- Deployed primary geotextile, TS700 on 1 December and TS1000 from 1 to 4 December, at north end CELA. This completes the geotextile layer over CELA. See attached figure and table below for quantities.
- Deployed gundseal and VLDPE at north end CELA from 30 November to 4 December. This completes the primary gundseal and VLDPE layers over CELA except for channel area. See attached figure and table below for quantities.
- Geocomposite drainage layer deployed from 30 November to 4 December to gridline N1050 (on east side of CELA). See attached figure and table below for quantities.
- Common fill imported from 30 November to 4 December and spread to approximately gridline N1050 (on east side of CELA). See attached figure and table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	82,500 (Completed)	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	7,667 (Completed)	9,359
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	142,800 (Completed)	522,507
Gundseal in CELA (m <sup>2</sup> )	13,271 (Completed)	48,560
VLDPE in CELA (ft <sup>2</sup> )	141,322 (Completed)	535,276
VLDPE in CELA (m <sup>2</sup> )	13,134 (Completed)	49,747
Geocomposite Layer (ft <sup>2</sup> )	109,440	372,210
Geocomposite Layer (m <sup>2</sup> )	10,171	34,592
Common Fill (tons)	14,303	35,469

- VLDPE geomembrane destructive samples 31 to 38 taken on 30 November, samples 39 to 43 taken on 1 December, sample 44 taken on 2 December and samples 45 to 53 taken on 4 December.
- Received results for VLDPE geomembrane destructive samples 31 to 38 on 2 December and samples 39 to 43 on 3 December. All results

satisfactory.

- Received results for geotextile destructive samples 14 to 19 on 1 December and samples 20 to 25 on 3 December. All results satisfactory.
- Construction of boots around pipe penetrations continued.
- Pumping of water from the north temporary holding pond in SLA to the sanitary sewer, which leads directly to the POTW, started on 5 December. Maximum pumping rate permitted by POTW is 35 gpm.
- Attempt made to dewater sand layer component of east CELA perimeter channel on 2 December, but not completed. Sumps excavated alongside perforated pipe and pumped. However, pump only operational intermittently and the task was not completed. Sand layer partially covered by polythene.
- Received data package (11 volumes) from Law Environmental Inc. for Refinery Surface Soil Cleanup (RSSC) samples taken by GeoSyntec Consultants. Copy of data package also sent to RMC Environmental Services for validation.
- No weekly progress meeting held this week.

## UNIT 2, SEPARATOR

- Received treated filtrate analytical results from east 30,000 gal. modutank on 1 December, and from west 30,000 gal. modutank on 4 December; represents fifth and sixth tankfuls of treated filtrate acceptable for discharge to POTW.
- Discharged, into POTW sanitary sewer line, treated filtrate from east 30,000 gal. modutank on 1 December and treated filtrate from west 30,000 gal. modutank on 4 December. See attached table for quantities.
- 24 hour treatment of filtrate into east 30,000 gal. modutank started on 1 December; completed and sampled on 4 December.

Represents seventh 30,000 gal. tankful of treated water tested. 24 hour treatment of filtrate into west 30,000 gal. modutank started on 4 December. See attached table for quantities.

- Continued steam cleaning debris in separator cells that have had sludge removed. Work being performed in level C protection.
- Used vacuum "Guzzler" truck on 2, 3, and 4 December to remove sludge covered material, such as rocks and small debris, from bottom of Separator cells which can neither be removed by the filter press pump nor steam cleaned in place. Free draining liquid decanted from vacuum truck and added to filtrate in modutank; sludge and sludge covered debris placed in roll-off.
- Sand-blasting of Separator walls and floors continued throughout week. Six cells completed by 29 November. Work being performed in level B. Used sand removed from Separator by vacuum truck and mixed with sludge covered debris in two roll-off boxes for off-site disposal.
- Second sand-blasting unit mobilized to site on 4 December.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- No activity.

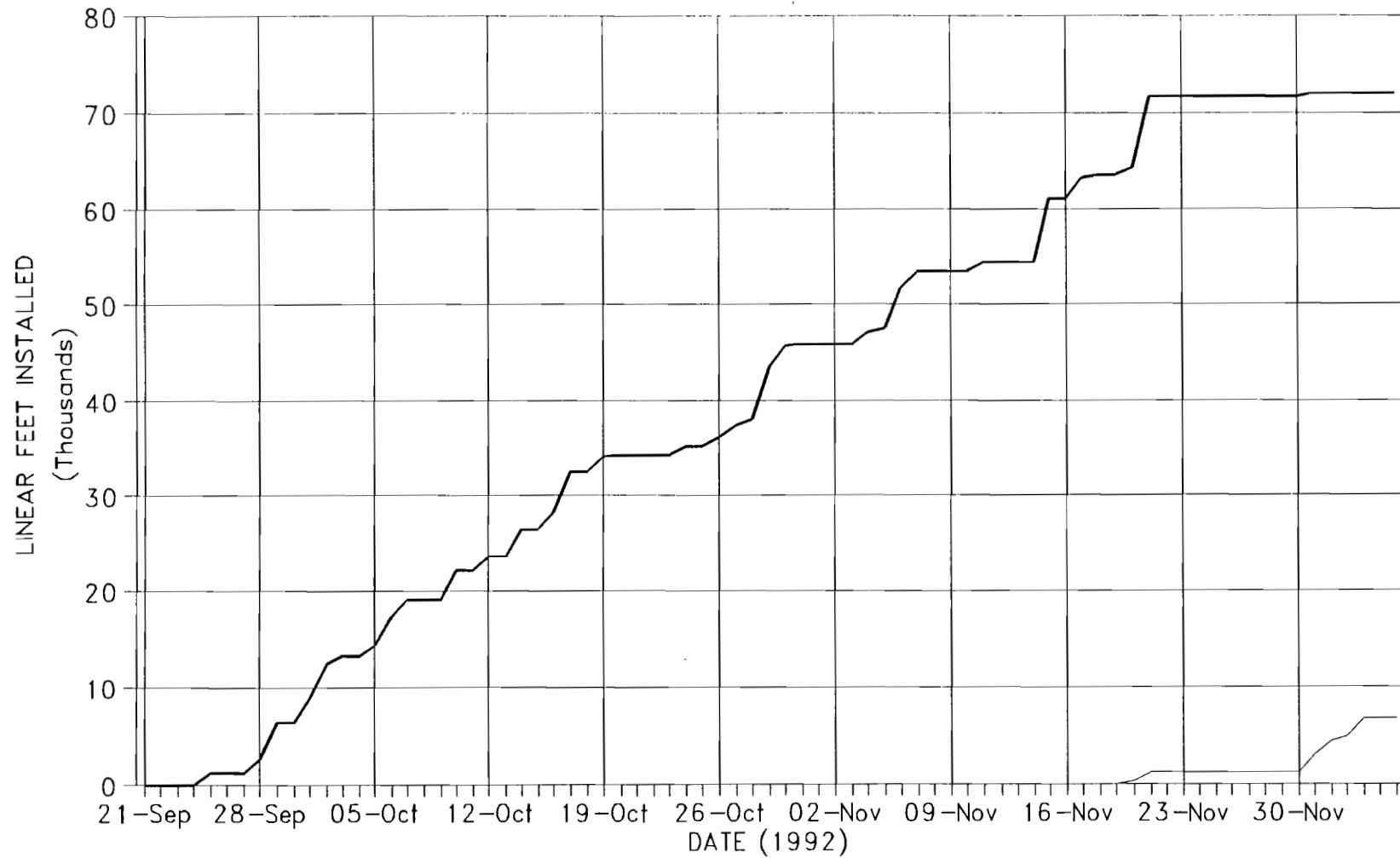
\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
J. G. Fox, P.G., GeoSyntec Consultants

# SINCLAIR REFINERY CELA CAP

## LINEAR FEET OF GEOTEXTILE INSTALLED

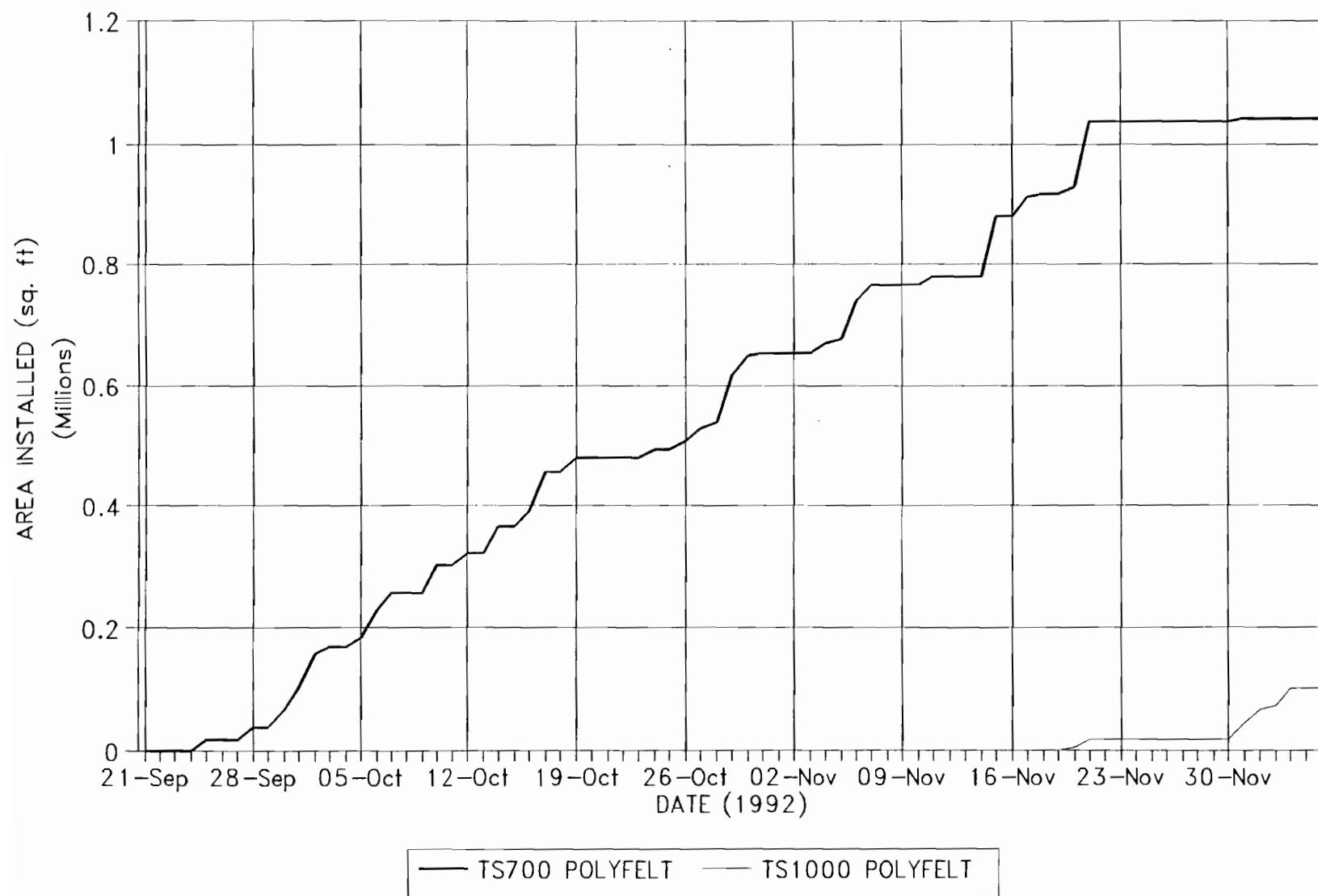


— TS700 POLYFELT — TS1000 POLYFELT



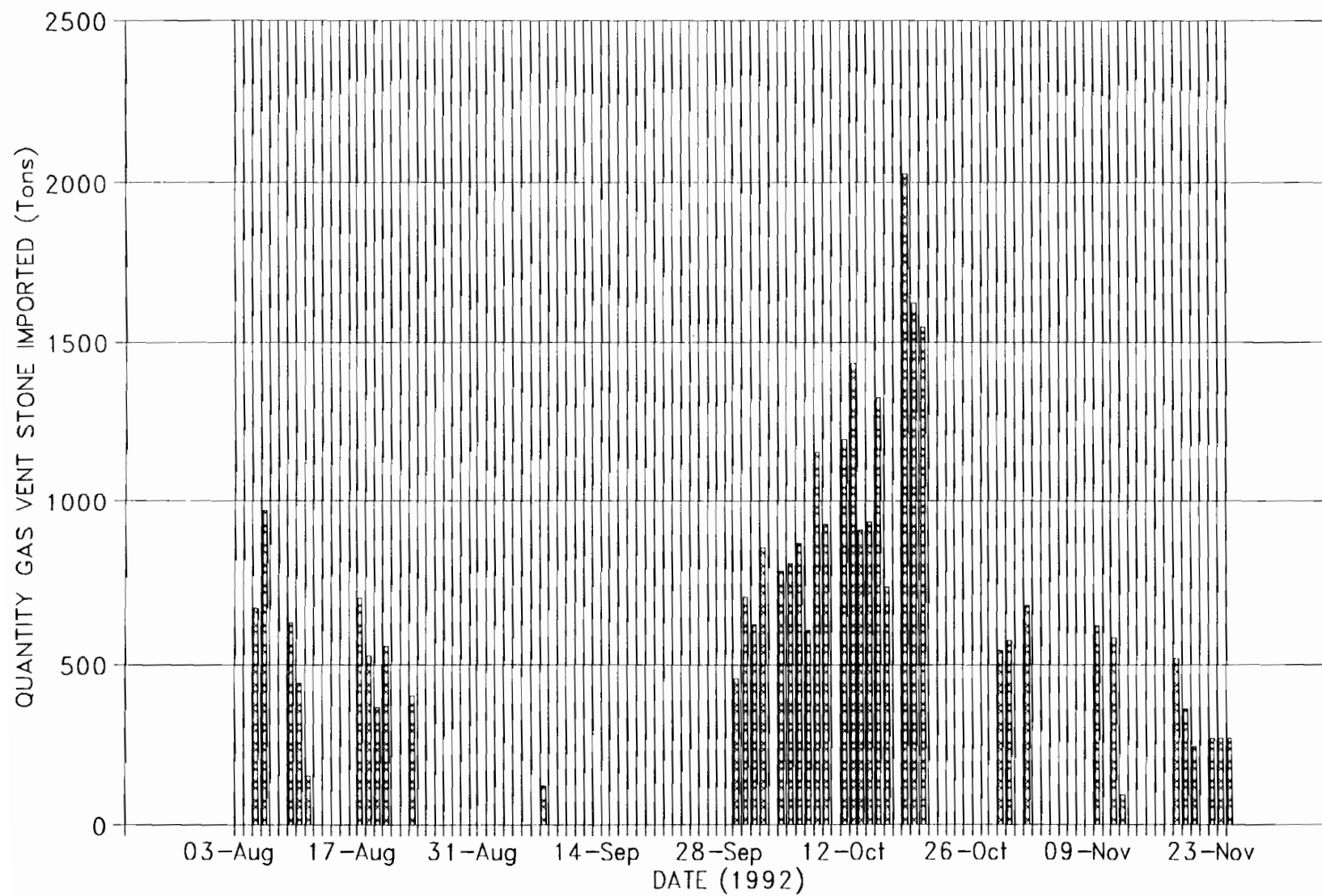
# SINCLAIR REFINERY CELA CAP

## AREA OF GEOTEXTILE INSTALLED



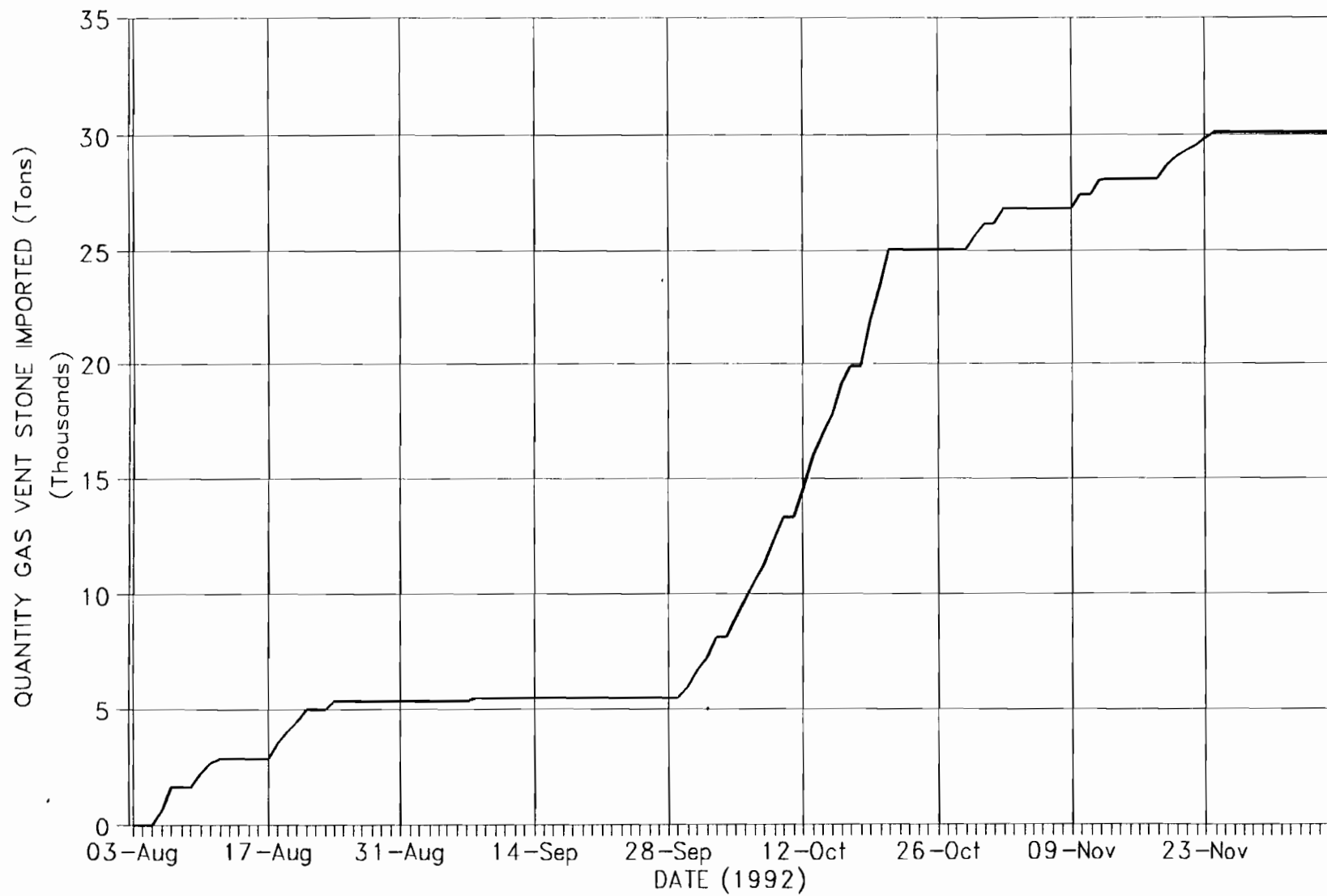
# SINCLAIR REFINERY CELA CAP

## DAILY QUANTITY GAS VENT STONE IMPORTED



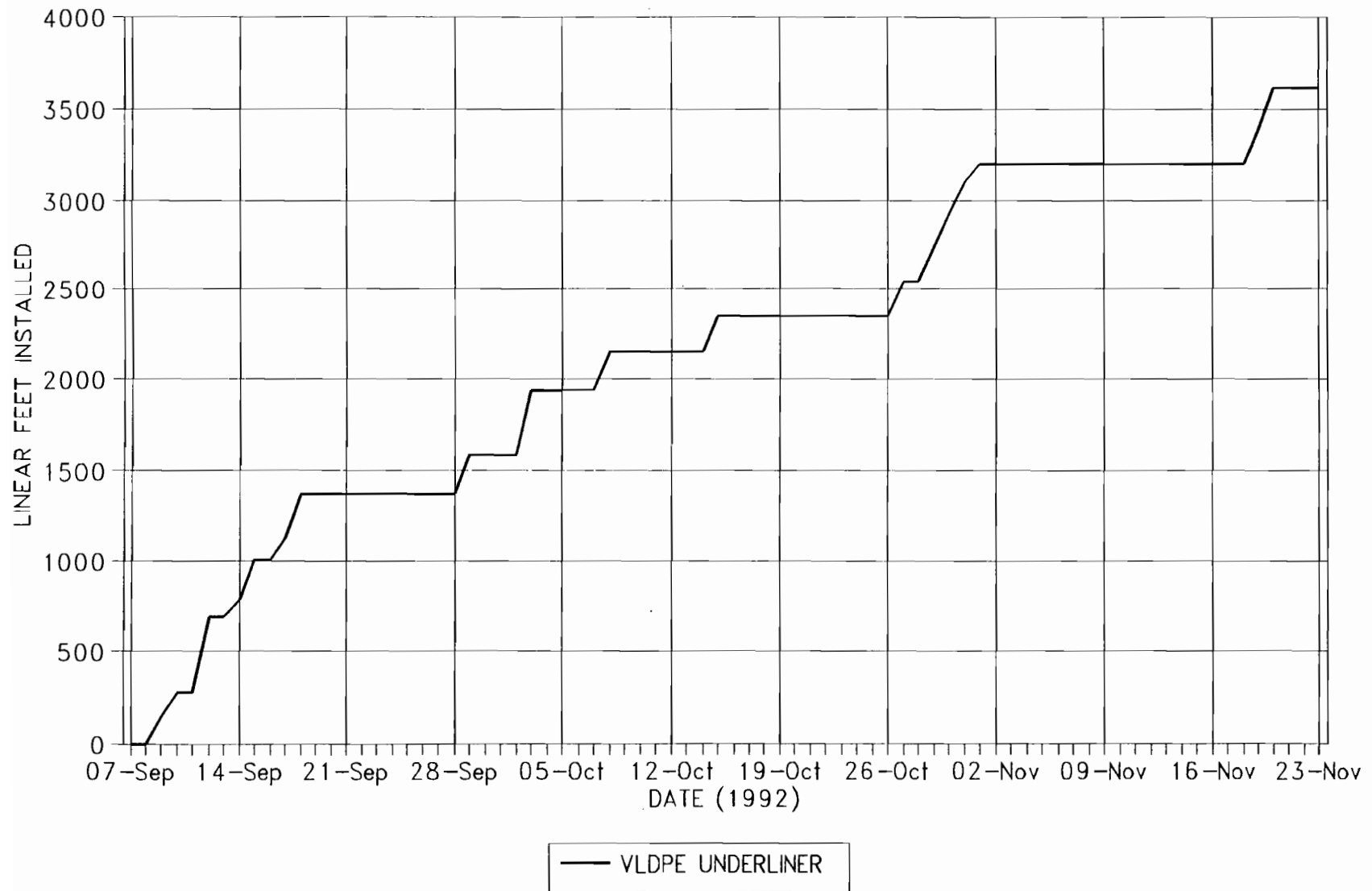
# SINCLAIR REFINERY CELA CAP

## TOTAL QUANTITY GAS VENT STONE IMPORTED



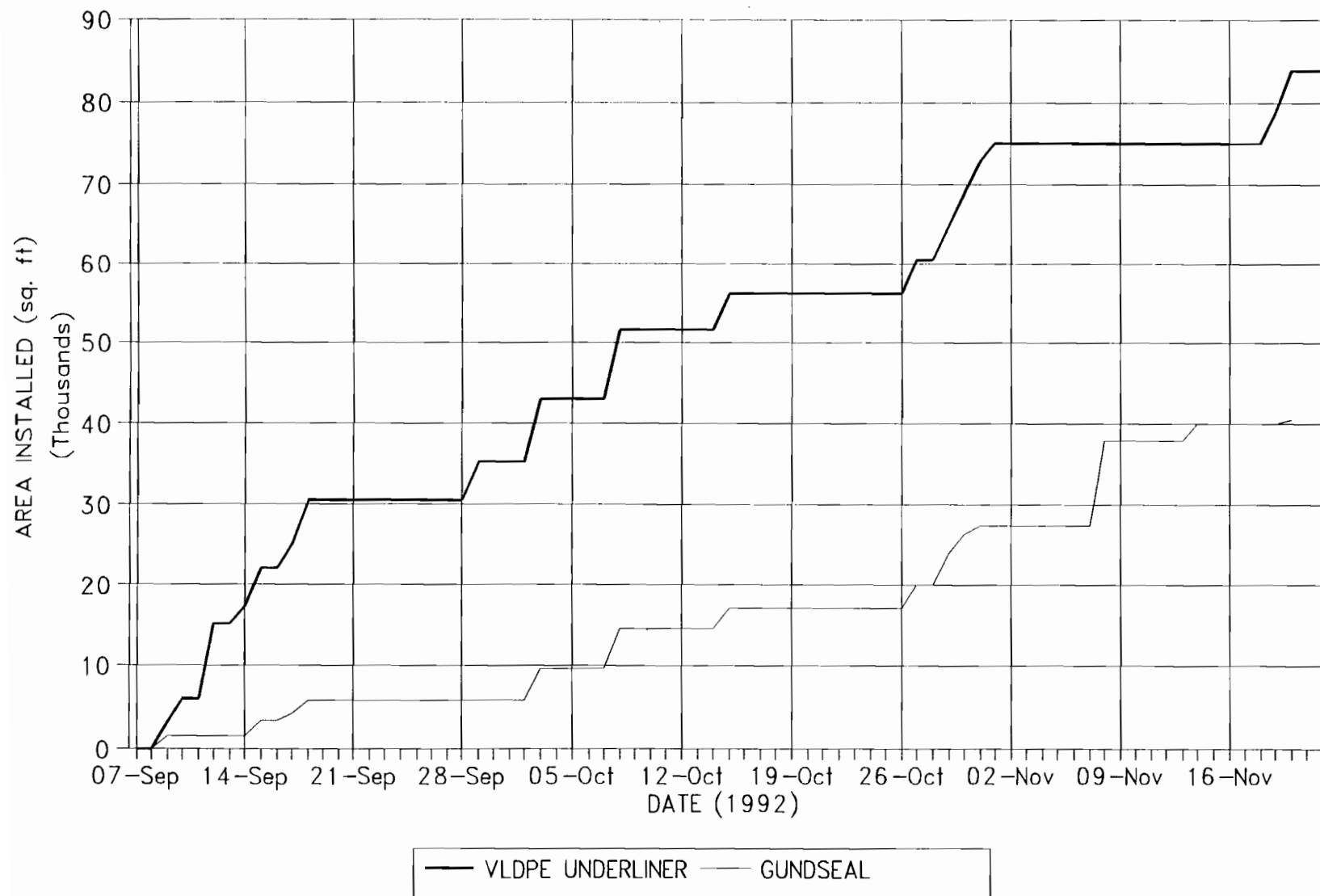
# SINCLAIR REFINERY CELA CAP

## LINEAR FT OF VLDPE UNDERLINER INSTALLED



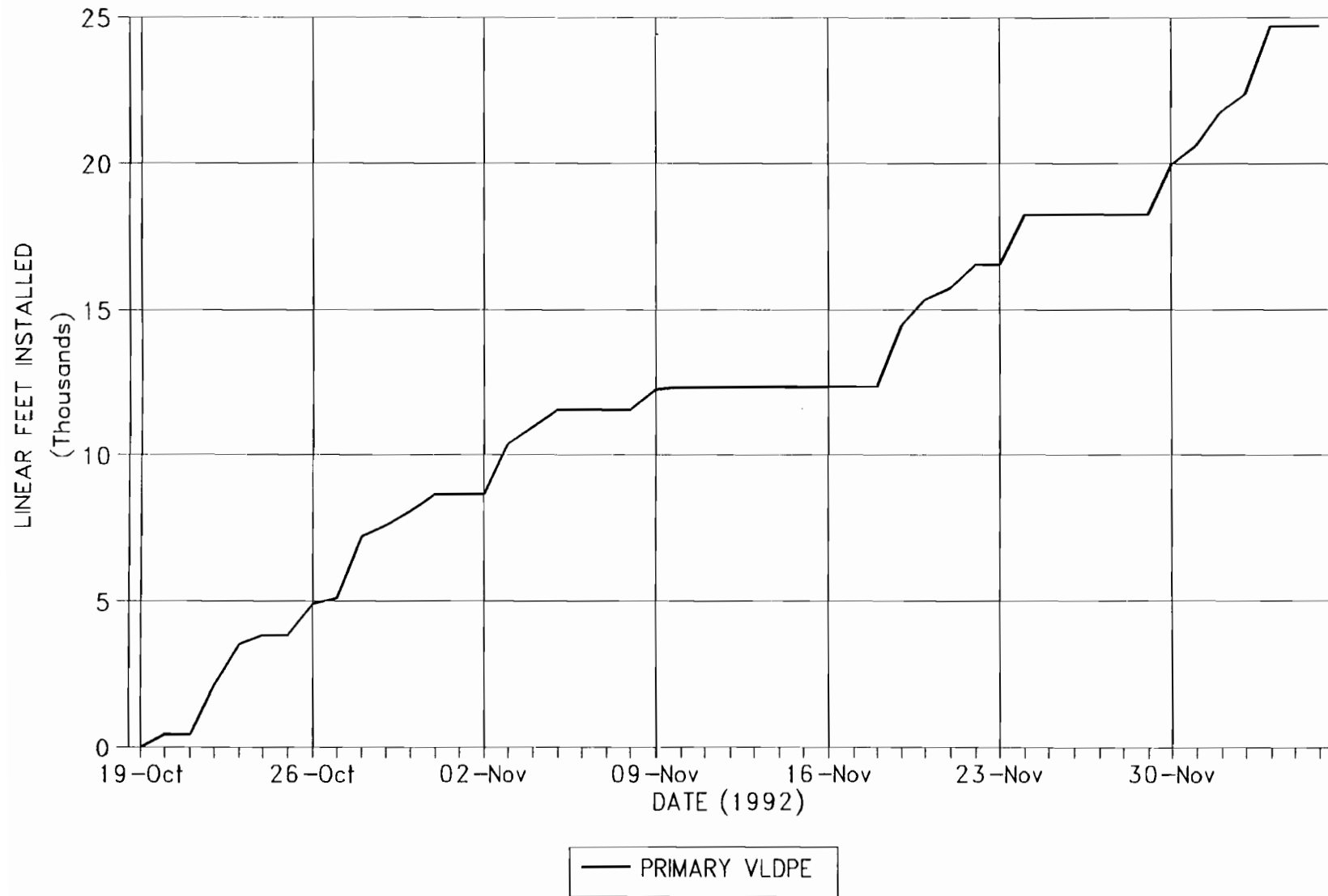
# SINCLAIR REFINERY CELA CAP

## AREA OF UNDERLINER MATERIALS INSTALLED



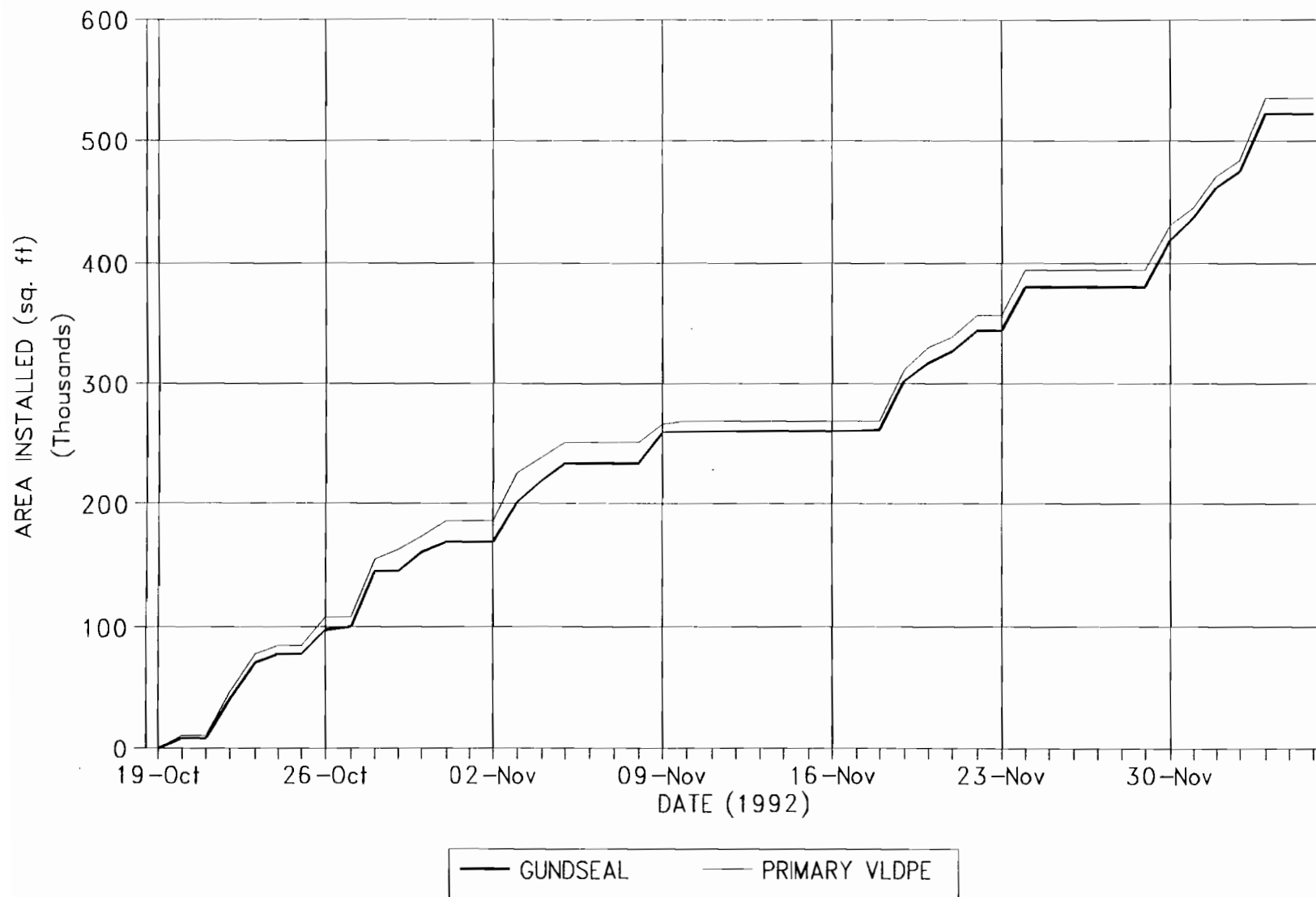
# SINCLAIR REFINERY CELA CAP

## LINEAR FT OF PRIMARY VLDPE INSTALLED



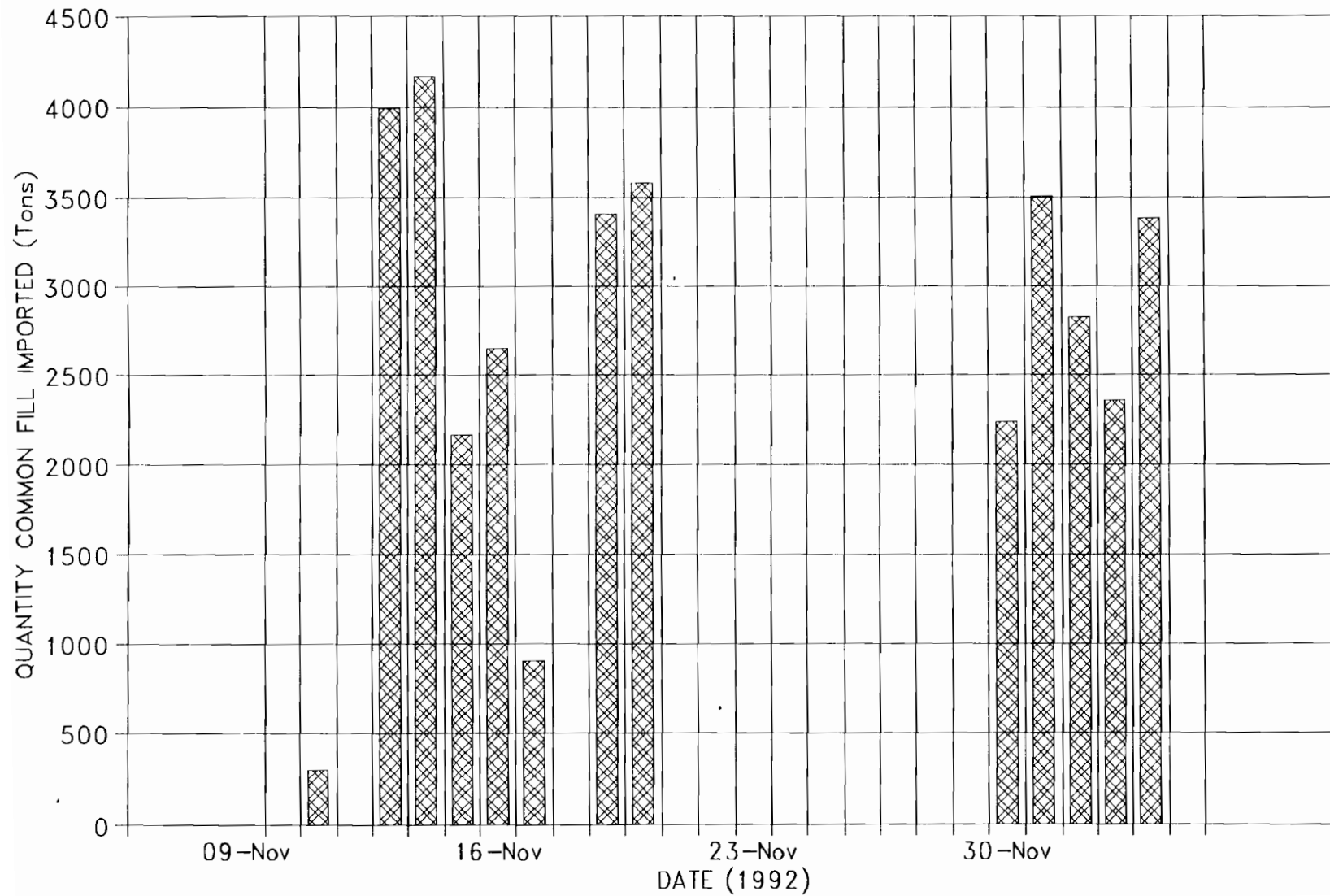
# SINCLAIR REFINERY CELA CAP

## AREAS OF MATERIALS INSTALLED



# SINCLAIR REFINERY CELA CAP

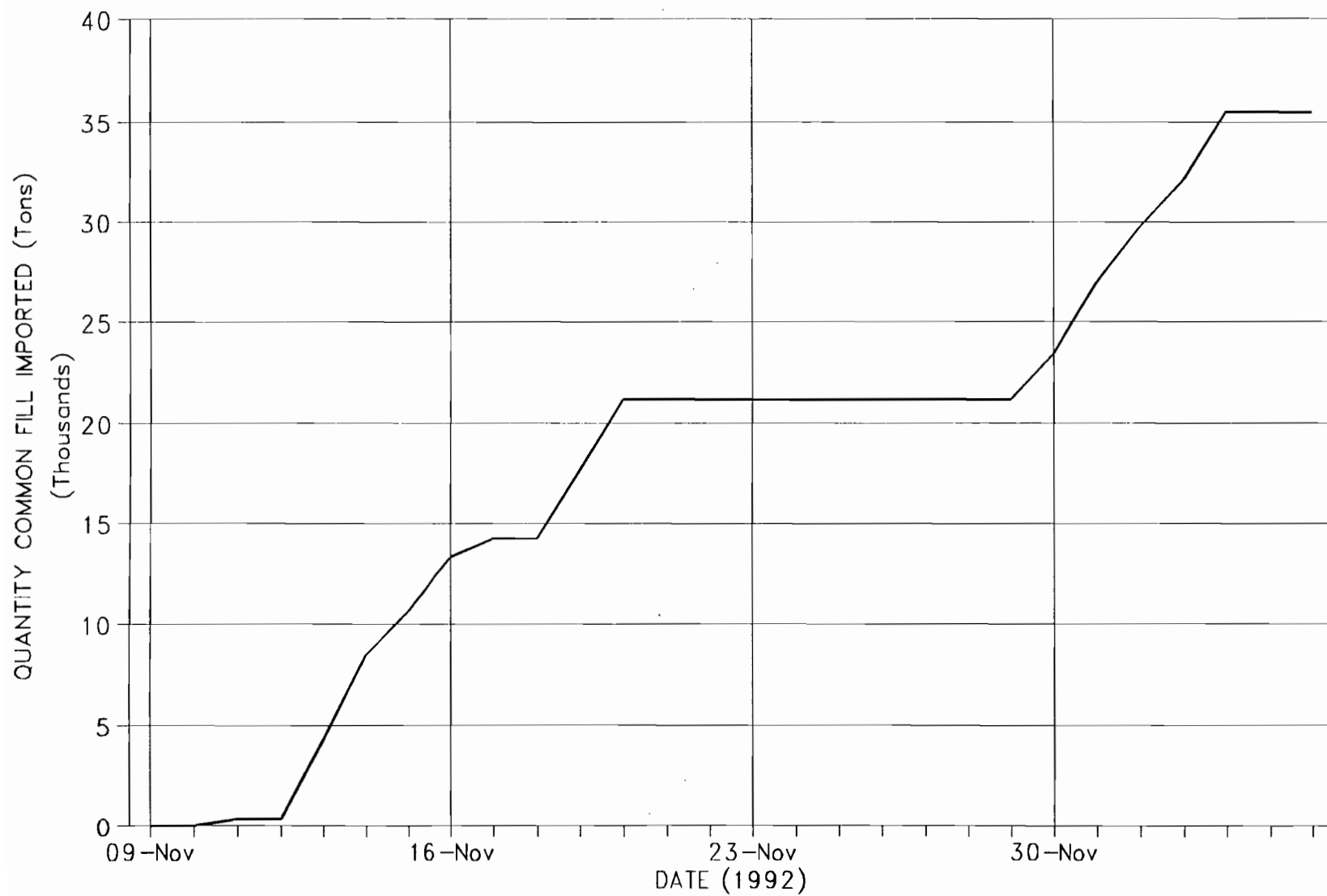
## DAILY QUANTITY COMMON FILL IMPORTED





# SINCLAIR REFINERY CELA CAP

## TOTAL QUANTITY COMMON FILL IMPORTED



SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 WEEK	OCTOBER TOTAL	W/E 11 WEEK	OCTOBER TOTAL	W/E 18 WEEK	OCTOBER TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 WEEK	OCTOBER TOTAL	W/E 1 WEEK	NOVEMBER TOTAL	W/E 8 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000
Volume aqueous phase treated (gal.)	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000
Volume sludge treated (gal.)	0	282,212
Weight filter-cake off-site (tons)	0	0
Volume filtrate produced (gal.)	2,579	226,396
Volume filtrate treated (gal.)	53,023	112,201
Volume filtrate to POTW (gal.)	50,902	59,178
Volume extraneous water present (gal.)	0	0
Volume extraneous water treated (gal.)	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants *SEB*  
Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 18 December 1992

**SUBJECT:** 7 to 13 December, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 7 to 13 December, 1992:

### UNIT 1

- Geocomposite drainage layer deployed from 8 to 10 December on north and west sides of CELA. See table below for quantities.
- Common fill imported from 7 to 9 December, spread and stock plied at north end of CELA. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0 (Completed)	100,700

Item	Quantity This Week	Cumulative Quantity
CELA Geotextile (TS1000) (m <sup>2</sup> )	0 (Completed)	9,359
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	0	522,507
Gundseal in CELA (m <sup>2</sup> )	0	48,560
VLDPE in CELA (ft <sup>2</sup> )	0	535,276
VLDPE in CELA (m <sup>2</sup> )	0	49,747
Geocomposite Layer (ft <sup>2</sup> )	46,740	418,950
Geocomposite Layer (m <sup>2</sup> )	4,343	38,936
Common Fill (tons)	7,707	43,176

- VLDPE geomembrane destructive samples 54 to 74 taken throughout week.
- Received results for VLDPE geomembrane destructive samples 44 to 53 on 9 December and samples 72 to 74 on 10 December. All results satisfactory.
- VLDPE geomembrane repair work continued throughout week.
- Construction of boots around pipe penetrations continued.
- Pumping of water from the north temporary holding pond in SLA to the sanitary sewer, which leads directly to the POTW, continued throughout week. Maximum pumping rate permitted by POTW is 35 gpm.

- Heavy snow fall on 10, 11, and 12 December, no site activities from 11 to 13 December.
- Soil sample taken from west dike for pH analysis as part of Partial River Channelization O&M Plan annual inspection on 8 December. Samples sent to Law Environmental, Inc., Pensacola, for analysis.
- Submittals reviewed for:
  - Shop drawing of cap layout (28WP04 addendum 1)
  - Gas vent stone source compliance tests (28QC04 addendum 25)
  - Contractor QC management plan VLDPE testing lab (28QC01 add. 1)
- No weekly progress meeting held this week.
- Monthly meeting held on 11 December.

## UNIT 2, SEPARATOR

- Sampled filtercake from 29 roll-off boxes and sludge covered sand and debris from 3 roll-off boxes on 10 December. Samples sent to Law Environmental, Inc., Pensacola, for analysis.
- 24 hour treatment of filtrate into west 30,000 gal. modutank completed and sampled on 7 December. Represents eighth 30,000 gal. tankful of treated water tested. See attached table for quantities.
- Sand-blasting of Separator walls and floors continued throughout week using two sandblasters. Work being preformed in level B. Sand removed from Separator by vacuum truck and mixed with sludge covered debris in two roll-off boxes for off-site disposal.
- Second concrete chip sample taken from south wall of west cell of north train of Separator on 8 December. Sample sent to General

Testing Corporation, Rochester, for analysis.

- Continued steam cleaning debris in separator cells that have had sludge removed.
- No weekly progress meeting held this week.
- Monthly meeting held on 10 December.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Lynn B. Macdonald, Morrison Knudsen Corporation

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0



SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178
Volume extraneous water present (gal.)	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Jonathan E. Brandes, GeoSyntec Consultants JEB

**DATE:** 5 January 1993

**SUBJECT:** 14 to 20 December, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 14 to 20 December, 1992:

### UNIT 1

- Geocomposite drainage layer deployed from 14 to 18 December after snow removed from VLDPE. See table below for quantities.
- Stock piled common fill spread on CELA from 15 to 19 December. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0 (Completed)	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0 (Completed)	9,359

Item	Quantity This Week	Cumulative Quantity
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	1,625	524,132
Gundseal in CELA (m <sup>2</sup> )	151	48,711
VLDPE in CELA (ft <sup>2</sup> )	1,375	536,651
VLDPE in CELA (m <sup>2</sup> )	128	49,875
Geocomposite Layer (ft <sup>2</sup> )	96,330	515,280
Geocomposite Layer (m <sup>2</sup> )	8,953	47,888
Common Fill (tons)	0	43,176

- VLDPE geomembrane and gundseal deployed at northeast end of CELA on 19 December. See table above for quantities.
- Received results for VLDPE geomembrane destructive samples 54 to 71 on 14 December. All results satisfactory.
- VLDPE geomembrane repair work continued on 14 and 18 December.
- Construction of boot around power pole started on 19 December.
- Development of monitoring wells restarted on 15 December and completed on 17 December.
- Development of Piezometers started on 17 December and completed on 18 December. P-6 was not developed because it contains free product.

- Installed silt and sediment control structures at north end culvert inlet and outlet, and at end of valleys on CELA from 15 to 18 December.
- Removed dike in front of north end culvert to allow runoff to flow off-site on 16 December.
- Severson's vacuum truck mobilized to assist in snow removal from VLDPE on 15 December.
- Pumping of water from the north temporary holding pond in SLA to the sanitary sewer, which leads directly to the POTW, continued throughout week. Maximum pumping rate permitted by POTW is 35 gpm.
- Fence materials delivered to site on 15 December.
- Submittals reviewed for:
  - Winter shut down plan (28SD01)
  - Submittal register (28SR01 addendum 5)
  - Certificates of compliance 60 mil VLDPE (28QC04 addendum 26)
- No weekly progress meeting held this week.

## **UNIT 2, SEPARATOR**

- Received treated filtrate analytical results from east and west 30,000 gal. Modutanks on 14 December, Represents Seventh and eighth tankfuls of treated water acceptable for discharge to POTW.
- Discharged, into POTW sanitary sewer line, treated filtrate from east and west 30,000 gal. Modutanks on 14 December. See attached table for quantities.

- 24 hour treatment of filtrate into east 30,000 gal. Modutank started on 14 December, completed and sampled on 16 December. Represents ninth 30,000 gal. tankful of treated water sampled. See attached table for quantities.
- 24 hour treatment of filtrate into west 30,000 gal. Modutank started on 16 December, completed and sampled on 18 December. Represents tenth 30,000 gal. tankful of treated water sampled. See attached table for quantities.
- Sand-blasting of Separator walls and floors continued throughout week using two sandblasters. Work being performed in level B. Sand removed from Separator by vacuum truck and placed in roll-off boxes for off-site disposal.
- Third concrete chip sample taken from west wall of west cell of south train of Separator on 14 December. Sample sent to General Testing Corporation, Rochester, for analysis.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Lynn B. Macdonald, Morrison Knudsen Corporation

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants RBN  
Jonathan E. Brandes, GeoSyntec Consultants JEB

**DATE:** 7 January 1993

**SUBJECT:** 21 to 27 December, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 21 to 27 December, 1992:

### UNIT 1

- Geocomposite drainage layer deployed on 21 December after snow removed from VLDPE. See table below for quantities.
- Common fill imported and spread on CELA on 21 and 22 December. See table below for quantities.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0	9,359



Item	Quantity This Week	Cumulative Quantity
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	0	524,132
Gundseal in CELA (m <sup>2</sup> )	0	48,711
VLDPE in CELA (ft <sup>2</sup> )	0	536,651
VLDPE in CELA (m <sup>2</sup> )	0	49,875
Geocomposite Layer (ft <sup>2</sup> )	2,850	518,130
Geocomposite Layer (m <sup>2</sup> )	265	48,153
Common Fill (tons)	2,527	45,703

- Construction of VLDPE boot around power pole completed on 21 December. Installation of geocomposite portion around boot not completed.
- Installed additional silt and sediment control structures in drainage channel at north end of CELA on 21 December.
- Prepared 25 temporary settlement monitoring points at proposed permanent settlement plate locations on 21 December. Elevations of temporary settlement monitoring points surveyed on 22 December.
- Due to frozen discharge line, no water was pumped from the temporary holding ponds in SLA to the sanitary sewer, which leads directly to the POTW, until 23 December. Intermittent pumping for rest of week due to refreezing of discharge line.

- Sump in south drainage channel removed and VLDPE repaired on 21 December. Geo-Con did not pump water from sand layer before repairing VLDPE.
- To reduce potential for sloughing, slope on CELA side of west dike covered with plastic, between approximately west dike stations 5+00 and 10+00, on 22 and 23 December.
- GeoSyntec Consultants collected soil samples from 4 locations at refinery area D (Otis Eastern) on 21 December and 8 locations at refinery area C (Powerhouse) on 22 December. Samples sent to Law Environmental, Pensacola, Florida, to determine arsenic concentrations.
- No site activity from 24 to 27 December, except pumping water from holding ponds to POTW.
- No weekly progress meeting held this week.

## UNIT 2, SEPARATOR

- Received treated filtrate analytical results from east 30,000 gal. Modutank on 23 December. Represents ninth tankful of treated water acceptable for discharge to POTW.
- Discharged treated filtrate from east 30,000 gal. Modutank into POTW sanitary sewer line on 23 December. See attached table for quantities.
- Sand-blasting of Separator walls and floors continued through 23 December using two sandblasters. Work being performed in level B. Sand removed from Separator by vacuum truck and placed in roll-off boxes for off-site disposal.
- ARCO and GeoSyntec Consultants conducted a preliminary Separator

walk through on 22 December.

- Partial decontamination of west 100,000 gal Modutank performed between 21 and 23 December.
- No site activity from 24 to 27 December.
- No weekly progress meeting held this week.

## **UNIT 2, POWERHOUSE**

- No activity.

\* \* \* \* \*

## **Attachment**

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Lynn B. Macdonald, Morrison Knudsen Corporation

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	OCTOBER TOTAL	W/E 11 OCTOBER WEEK	OCTOBER TOTAL	W/E 18 OCTOBER WEEK	OCTOBER TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	OCTOBER TOTAL	W/E 1 NOVEMBER WEEK	NOVEMBER TOTAL	W/E 8 NOVEMBER WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875 by 15 Nov	14,971	208,846	14,971	223,817
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	
Volume aqueous phase removed (gal.)	0	82,000	
Volume aqueous phase treated (gal.)	0	82,000	
Volume of aqueous phase to POTW (gal.)	0	82,000	
Volume sludge treated (gal.)	0	282,212	
Weight filter-cake off-site (tons)	0	0	
Volume filtrate produced (gal.)	0	233,841	
Volume filtrate treated (gal.)	0	163,103	
Volume filtrate to POTW (gal.)	25,451	<del>112,201</del>	137,652
Volume extraneous water present (gal.)	0	0	JEB
Volume extraneous water treated (gal.)	0	12,623	
Volume extraneous water to POTW (gal.)	0	12,623	16/mar/93

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 8 January 1993

**SUBJECT:** 28 December 1992 to 3 January 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 28 December 1992 to 3 January 1993:

### UNIT 1

- New discharge line installed between holding ponds in SLA and sanitary sewer manhole to northwest of CELA on 30 December. Water pumped from temporary holding ponds to sanitary sewer from 30 December for rest of week.
- Fence materials delivered to site on 29 December, and stockpiled in staging area.
- No site activity from 31 December to 3 January, except pumping water from holding ponds to POTW.
- No weekly progress meeting held this week.

### UNIT 2, SEPARATOR

- 6 roll-off boxes containing filter cake transported on 28

December to LWD Inc., Culvert City, Kentucky, for incineration by Buffalo Fuel Corporation. See attached table for quantities.

- 5 roll-off boxes containing filter cake transported on 30 December to LWD for incineration by Buffalo Fuel Corporation. See attached table for quantities.
- Received treated filtrate analytical results from west 30,000 gal. Modutank on 28 December. Represents tenth tankful of treated water acceptable for discharge to POTW.
- Discharged treated filtrate from west 30,000 gal. Modutank into POTW sanitary sewer line on 29 December. See attached table for quantities.
- 24 hour treatment of filtrate into east 30,000 gal. Modutank performed between 28 and 30 December.
- Re-sandblasting of Separator walls and floors continued intermittently through 30 December. Work being performed in level B. Sand removed from Separator by vacuum truck and placed in roll-off boxes for off-site disposal.
- Received total petroleum hydrocarbons (TPH) analytical results on 29 December of 19,400 ppm and 51,400 ppm for concrete chip samples 1 and 2 respectively.
- Fourth concrete chip sample collected on 29 December from wall of Separator immediately above location of chip sample 1.
- Partial demobilization of west 100,000 gal. Modutank performed between 28 and 30 December. Decontamination Completed on 30 December.
- No site activity from 31 December to 3 January.



28 December 1992 to 3 January 1993, Weekly Field Report  
8 January 1993  
Page 3

- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
L. B. Macdonald, Morrison Knudsen Corporation

SINCLAIR REFINERY, WELLSVILLE, NEW

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	
Volume sludge treated (gal.)	0	282,212	0	282,212	
Weight filter-cake off-site (tons)	0	0	163	163	
Volume filtrate produced (gal.)	0	233,841	0	233,841	
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	
Volume filtrate to POTW (gal.)	25,451	112,201	25,451	112,201	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	JEB
Volume extraneous water treated (gal.)	0	12,623	0	12,623	
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	16/mar/93
		137,652			
		JEB			
		16/mar/93			

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 14 January 1993

**SUBJECT:** 4 to 10 January 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 4 to 10 January 1993:

### UNIT 1

- Water pumped from temporary holding ponds in SLA to sanitary sewer, which leads directly to POTW, through 6 January. Remaining water frozen in holding ponds, and unable to be pumped. Geo-Con proposes to leave this water until remobilizing to site.
- ARCO and GeoSyntec Consultants conducted a preliminary CELA walk through on 7 January, and discussed punch list items with Geo-Con on 8 January.
- Geo-Con continued with activities relating to winter shut down and punch list items requiring immediate attention.
- No weekly progress meeting held this week.

### UNIT 2, SEPARATOR

- 3 roll-off boxes containing filtercake transported on 4 January

to LWD Inc., Culvert City, Kentucky, for incineration by Buffalo Fuel Corporation. See attached table for quantities.

- 3 roll-off boxes containing filtercake transported on 5 January to LWD for incineration by Buffalo Fuel Corporation. See attached table for quantities.
- 3 roll-off boxes containing filtercake transported on 8 January to LWD for incineration by Buffalo Fuel Corporation. See attached table for quantities.
- 2 roll-off boxes containing sand and residuals from sandblasting sampled on 4 January. Samples sent to Law Environmental Inc., Pensocola, Florida, for K051 analysis.
- Completed treatment of filtrate into east 30,000 gal. Modutank and sampled on 4 January. Represents eleventh tankful of treated water sampled. See attached table for quantities.
- 24-hour treatment of filtrate into west 30,000 gal. Modutank started on 4 January; completed and sampled on 7 January. Represents twelfth tankful of treated water sampled. See attached table for quantities.
- Selective re-sandblasting of Separator walls and floors performed on 5 January. Work performed in level B. Sand removed from Separator by vacuum truck and placed in roll-off boxes for off-site disposal.
- Fifth concrete chip sample collected on 5 January from wall of Separator immediately to side of chip sample 2.
- Received total petroleum hydrocarbons (TPH) analytical results on 6 January of 30,500 ppm, 21,300 ppm, and 12,600 ppm for concrete chip samples 3, 3 Dup and 4, respectively.

4 to 10 January 1993, Weekly Field Report  
14 January 1993  
Page 3

- Received TPH analytical result on 7 January of 6,860 ppm for concrete chip sample 5.
- Installed 15-in. diameter CMP from ditch on south side of Current Controls building to manhole 3 of Separator bypass line on 6 January.
- No weekly progress meeting held this week.

#### UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

#### Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
L. B. Macdonald, Morrison Knudsen Corporation

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0
::						



SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875 by 15 Nov	14,971	208,846	14,971	223,817
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	W/E 10 WEEK	JANUARY TOTAL	
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000	
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000	
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000	
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212	
Weight filter-cake off-site (tons)	0	0	163	163	128	291	
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841	
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	34,005	214,005	
Volume filtrate to POTW (gal.)	25,451	<del>112,201</del>	25,451	<del>112,201</del>	0	<del>112,201</del>	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	unknown	JEB
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623	16/mar/93
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623	

137,652  
 JEB  
 16/mar/93

163,103  
 JEB  
 16/mar/93

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants

**DATE:** 26 January 1993

**SUBJECT:** 11 to 17 January 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

*RBN*  
*JEB*

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 11 to 17 January 1993:

### UNIT 1

- GeoSyntec Consultants collected CELA run-off water samples from 42-in. CMP culvert at north end of CELA on 13 January. Samples sent to Law Environmental Inc., Kennesaw, Georgia, for analysis.
- Geo-Con and GeoSyntec Consultants cut 4 geocomposite samples from exposed deployed geocomposite. The geotextile component will be strength and property tested by GeoSyntec Consultants' Materials Testing Laboratory, Boca Raton, Florida. Geo-Con is required to take adjacent samples when work resumes to determine whether exposure has resulted in degradation of the geotextile.
- Fence materials moved from staging area to west side of SLA on 11 January.
- Geo-Con continued with activities relating to winter shut down and punch list items requiring immediate attention. Geo-Con site staff depart site on 13 January.
- Buffalo Crushed Stone, Inc. delivered one truckload of proposed riprap to site from its Wherle Road, Buffalo, quarry on 11 January. The riprap appeared to contain excessive fines, which was noted to Geo-Con.
- GeoSyntec Consultants visited the Buffalo Crushed Stone quarry on Wherle Road, Buffalo, on 15 January to observe proposed riprap

source. Material is a cherty limestone. Material visible in stockpiles generally appeared suitable; however, there was evidence of fines in places, correlating the observation made regarding the material delivered to site.

- No weekly progress meeting held this week.

## **UNIT 2, SEPARATOR**

- Temporary roof over Separator dismantled between 11 and 13 January.
- Pipes, valves, and pumps removed from Separator between 11 and 12 January.
- Pumphouse and pumphouse foundation demolished between 11 and 14 January.
- Track-hoe with hydraulic ram attachment (hoe ram) delivered to site on 14 January. Used to: demolish pumphouse foundation; demolish separator walls; make holes in separator floor; break up pieces of concrete debris; and spread debris around in cells during gravel backfilling of separator.
- Holes made in floor of Separator cells between 13 and 15 January using rock drill on 13 January and hoe ram on 14 and 15 January. Typically two to three holes were made in each cell.
- Separator walls demolished 2 feet below grade between 13 and 15 January, initially using bulldozer and subsequently using hoe ram.
- Backfilling of pumphouse and Separator cells with gravel started on 13 January and continued throughout week.
- 2 roll-off boxes containing filtercake transported on 14 January to LWD Inc., Culvert City, Kentucky, for incineration by Buffalo Fuel Corporation. See attached table for quantities.
- Received treated filtrate analytical results from east 30,000 gal. Modutank on 11 January. Represents eleventh tankful of treated water acceptable for discharge to POTW.

- Discharged treated filtrate from east 30,000 gal. Modutank into POTW sanitary sewer line on 11 January. See attached table for quantities.
- 24-hour treatment of filtrate into east 30,000 gal. Modutank started on 11 January; completed and sampled on 14 January. Represents thirteenth tankful of treated water sampled. See attached table for quantities.
- Received treated filtrate analytical results from west 30,000 gal. Modutank on 14 January. Represents twelfth tankful of treated water acceptable for discharge to POTW.
- Discharged treated filtrate from west 30,000 gal. Modutank into POTW sanitary sewer line on 14 January. See attached table for quantities.
- Installed cover over 100,000 gal. Modutank on 15 January to begin final treatment of bottom ice and residuals.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	W/E 10 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	163	163	128	291
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	34,005	214,005
Volume filtrate to POTW (gal.)	25,451	137,652	25,451	163,103	0	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

ITEM	W/E 17 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000
Volume aqueous phase treated (gal.)	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000
Volume sludge treated (gal.)	0	282,212
Weight filter-cake off-site (tons)	31	322
Volume filtrate produced (gal.)	0	233,841
Volume filtrate treated (gal.)	19,836	233,841
Volume filtrate to POTW (gal.)	50,902	214,005
Volume extraneous water present (gal.)	unknown	unknown
Volume extraneous water treated (gal.)	5,615	18,238
Volume extraneous water to POTW (gal.)	0	12,623



## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants RBN  
Jonathan E. Brandes, GeoSyntec Consultants JE B

**DATE:** 27 January 1993

**SUBJECT:** 18 to 24 January 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 18 to 24 January 1993:

### UNIT 1

- EPA/DEC walk through of CELA and Separator on 20 January. M. Negrelli and L. DiGaurdia (EPA), J. Drumm (NYDEC) and M. Hrywnak (COE) in attendance. B. Powers and C. Bailey (Geo-Con) also travelled to site for the day to be present at the meeting.
- GeoSyntec Consultants collected soil samples from 1 location at Refinery Area A (Current Controls), 12 locations at Refinery Area C (powerhouse) and 5 locations at Refinery Area D (Otis Eastern) on 18 and 19 January. Samples sent to Law Environmental, Pensacola, Florida, to determine arsenic concentrations.
- GeoSyntec Consultants and On-Site Health and Safety performed operation and maintenance activities associated with CELA monitoring wells and piezometers on 20, 21 and 22 January. Piezometer P-6 could not be accessed due to a temporary protective drum which Geo-Con had set over the riser casing and embedded in soil. Water samples taken from monitoring wells MWR-1 to MWR-11 and piezometers P-3 and P-5. Samples sent to Alfred Technical & Analytical Laboratory, Alfred, New York, for

analysis. Other parameters measured on-site as part of activities.

- Submittals reviewed for:
  - Winter shut down plan (28SD01, Rev. 1);
  - Certificates of compliance, fences and gates (28SF03, Addendum 1);
  - Borrow source and compliance tests, common fill (28QC04, Addendum 27);
  - Certificates of compliance, TS1000 geotextile (28QC04, Addendum 28);
  - Borrow source and compliance tests, riprap (28QC04, Addendum 29); and
  - Borrow source and compliance tests, riprap (28QC04, Addendum 30).
- No weekly progress meeting held this week.

## **UNIT 2, SEPARATOR**

- Backfilling of Separator cells and pumphouse with gravel continued and completed on 20 January.
- Moved nine roll-off boxes from Separator to powerhouse enclosure on 21 January.
- Received treated filtrate analytical results from east 30,000 gal. Modutank on 22 January. Represents thirteenth tankful of treated water acceptable for discharge to POTW.
- Discharged treated filtrate from east 30,000 gal. Modutank into POTW sanitary sewer line on 22 January. See attached table for quantities.
- Started using heaters to melt ice in 100,000 gal Modutank and pumped aqueous material into west 30,000 gal Modutank. Mixture

of sludge and ice remained in 100,000 gal Modutank at end week.

- Removed fence from west half of site and reestablished two lane road to SUNY on 22 January. Temporary fencing set around manholes 1 and 2.
- No weekly progress meeting held this week.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	W/E 10 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	163	163	128	291
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	34,005	214,005
Volume filtrate to POTW (gal.)	25,451	137,652	25,451	163,103	0	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

ITEM	W/E 17 WEEK	JANUARY TOTAL	W/E 24 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212
Weight filter-cake off-site (tons)	31	322	0	322
Volume filtrate produced (gal.)	0	233,841	0	233,841
Volume filtrate treated (gal.)	19,836	233,841	0	233,841
Volume filtrate to POTW (gal.)	50,902	214,005	19,836	233,841
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	5,615	18,238	0	18,238
Volume extraneous water to POTW (gal.)	0	12,623	5,615	18,238

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants RBN  
Jonathan E. Brandes, GeoSyntec Consultants JEB

**DATE:** 6 February 1993

**SUBJECT:** 25 to 31 January 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 25 to 31 January 1993:

### UNIT 1

- Approximately 1,533 tons of riprap delivered from Buffalo Crushed Stone's Wherle Road, Buffalo, quarry between 25 and 29 January; material stockpiled in staging area.
- GeoSyntec Consultants received refinery surface soil analytical results from Law Environmental, Inc. on 27 and 30 January for samples collected on 18 and 19 January from Areas A (Current Controls), C (powerhouse) and E (Otis Eastern). Data indicates some locations with arsenic concentrations above 25 ppm.

### UNIT 2, SEPARATOR

- ARCO trailer demobilized on 25 January.
- General site cleanup and demobilization activities continued.
- One roll-off box delivered to site on 27 January. This roll-off box will receive sludge from bottom of 100,000 gal. Modutank
- Two roll-off boxes moved from Separator to powerhouse enclosure on 27 January.
- Decontaminated east 30,000 gal. Modutank on 25 and 26 January and started dismantling tank on 27 January.

- Continued using heaters to melt ice in 100,000 gal. Modutank. Aqueous material pumped into west 30,000 gal. Modutank. Completed separation and transfer of aqueous material on 27 January. Sludge removed from bottom of 100,000 gal. Modutank with vacuum truck on 27, 28 and 29 January.
- Started treating aqueous material in west 30,000 gal. Modutank on 27 January. Tank covered and heater placed inside tank to melt ice on 28 January. Treated water discharged at a rate of approximately 4 gal/min into manhole 4 of Separator by-pass system, which leads directly to Genesee River, instead of into manhole leading to POTW. Treatment and discharge into manhole 4 continued for approximately 20 hours until GeoSyntec Consultants alerted Severson to error on 28 January. Severson estimated that approximately 4,250 gals. of untested water was discharged into Genesee River. Severson corrected discharge error immediately and took a water sample for analysis to compare treated water with Genesee River discharge requirements. Treatment and discharge to POTW continued on 28 and 29 January. See attached table for quantities.
- Twenty-nine 55-gal. drums containing oil, skimmed from top of east 100,000 gal. Modutank, transported by Hazmat Trucking to LWD Inc., Culvert City, Kentucky, for incineration.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants



SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875 by 15 Nov	14,971	208,846	14,971	223,817
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	W/E 10 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	163	163	128	291
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	34,005	214,005
Volume filtrate to POTW (gal.)	25,451	137,652	25,451	163,103	0	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

ITEM	W/E 17 WEEK	JANUARY TOTAL	W/E 24 WEEK	JANUARY TOTAL	W/E 31 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	31	322	0	322	0	322
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	19,836	233,841	0	233,841	0	233,841
Volume filtrate to POTW (gal.)	50,902	214,005	19,836	233,841	0	233,841
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	27,076
Volume extraneous water treated (gal.)	5,615	18,238	0	18,238	8,838	27,076
Volume extraneous water to POTW (gal.)	0	12,623	5,615	18,238	4,596	22,834
Volume extraneous water to river (gal.)	0	0	0	0	4,242	4,242

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 4 March 1993

**SUBJECT:** 1 to 7 February 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 1 to 7 February 1993:

### UNIT 1

- Approximately 1,272 tons of riprap delivered from Buffalo Crushed Stone's Wherle Road, Buffalo, quarry between 2 and 5 February for a total of 2835 tons; material stockpiled in staging area.
- GeoSyntec Consultants received 3 refinery surface soil analytical results from Law Environmental, Inc. on 5 February for samples collected on 18 January from area C (powerhouse). Data indicates arsenic concentrations below 25 ppm.
- Refinery surface soil conformational samples collected by GeoSyntec Consultants in refinery areas A (Current Controls), 3 samples, and C (powerhouse), 13 samples, on 4 and 5 February. Samples sent to Law Environmental Inc., Pensacola, Florida, to determine lead and/or arsenic concentrations.

### UNIT 2, SEPARATOR

- General site cleanup and demobilization activities continued throughout week.
- Completed dismantling east 30,000 gal. Modutank on 1 February.
- Decontaminated and dismantled west 100,000 gal. Modutank between 1 and 3 February.

- Continued treatment of liquid phase in west 30,000 gal. Modutank on 1 February; completed on 3 February. This completed the treatment of all liquid phase material (aqueous phase, filtrate, and miscellaneous water).
- Removal of residual sludge from west 30,000 gal. Modutank to vacuum truck completed on 2 February.
- Decontaminated and dismantled west 30,000 gal. Modutank on 3 and 4 February. This completes dismantling of all Modutanks.
- Residual sludge that was removed from 100,000 gal. Modutank (week ending 31 January) and west 30,000 gal. Modutank and stored in vacuum truck was stabilized with lime and placed in roll-off boxes 268 and 527 from 1 to 4 February.
- Residual sludge in roll-off boxes 268 and 527 sampled on 4 February. Samples sent to Law Environmental Inc., Pensacola, Florida, for K051 analysis.
- Removed decontamination pad and associated materials on 5 February.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *SEB*

**DATE:** 4 March 1993

**SUBJECT:** 8 to 14 February 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 8 to 14 February 1993:

### UNIT 1

- Approximately 1,507 tons of riprap delivered from Buffalo Crushed Stone's Wherle Road, Buffalo, quarry between 8 and 12 February for a total of 4,342 tons; material stockpiled in staging area.
- GeoSyntec Consultants received 16 refinery surface soil analytical results from Law Environmental, Inc. on 10 February for samples collected on 5 February from areas A (Current Controls) and C (powerhouse). Data indicates 1 location in area A and 6 locations in area C with arsenic concentrations above 25 ppm.
- Additional surface soil conformational sampling performed by GeoSyntec Consultants in refinery area C (powerhouse), 9 samples, on 11 February. Samples sent to Law Environmental Inc., Pensacola, Florida, to determine arsenic concentrations.
- C. Bailey on-site on 12 February to determine unit weight of riprap delivered to site.

### UNIT 2, SEPARATOR

- General site cleanup and demobilization activities continued throughout week.
- Moved three roll-off boxes containing sludge to powerhouse

enclosure on 8 February. All 14 remaining roll-off boxes are now in powerhouse enclosure.

- Demobilized water treatment plant and site fuel tank on 8 February.
- Completed removal of perimeter fencing on 9 February.
- Continued final site grading between 8 and 11 February. An additional 100 tons of gravel was placed around manholes 3 and 4. Topographic survey conducted on 11 February.
- Final inspection held on 11 February. No EPA or DEC representatives present.
- Sampled filtercake in 10 roll-off boxes on 11 February. Samples sent to General Testing Corporation, Rochester, New York, for K051 analysis.
- Cleaned and painted 10 steel pipe sections approximately 8-ft long and 8-in. diameter on 11 and 12 February. Pipe sections to be used around manholes 1, 2 and existing manhole to protect the manholes from vehicular traffic.
- Demobilized shower trailer on 11 February.

## UNIT 2, POWERHOUSE

- Geo-Con removed spoil heap from base of stack on 10 February to uncover small opening at bottom of stack.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 4 March 1993

**SUBJECT:** 15 to 21 February 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The key activities that took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 15 to 21 February 1993 are listed below. GeoSyntec Consultants was not present at the site this week.

### UNIT 1

- Approximately 618 tons of riprap delivered from Buffalo Crushed Stone's Wherle Road, Buffalo, quarry between 15 and 17 February for a total of 4,960 tons; material stockpiled in staging area.
- Geo-Con removed HDPE pipe and front-end loader from site on 19 February.

### UNIT 2, SEPARATOR

- Installed 4 bollards around manhole 1, and 6 bollards around manhole 2 and existing catch basin NCB-2 on 15 and 16 February to protect the manholes from vehicular traffic. Each bollard consists of the 8-ft (2.4-m) long pipe sections, that were painted during the week ending 14 February, inserted 4-ft (1.2-m) into the ground with 4000 psi concrete and filled internally with 4000 psi concrete.
- General site cleanup and demobilization activities continued on 15 and 16 February.
- Demobilized D-65 Komatsu bulldozer and tool trailer on 15 February.
- Severson completed demobilization on 16 February except for



15 to 21 February 1993, Weekly Field Report  
4 March 1993  
Page 2

contractor trailer and International utility loader.

- Received KO51 analytical results for roll-off sample numbers 35 and 36 during week.

**UNIT 2, POWERHOUSE**

- No activity.

\* \* \* \* \*

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D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 3 March 1993

**SUBJECT:** 22 to 28 February 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 22 to 28 February 1993:

### UNIT 1

- GeoSyntec Consultants received 9 refinery surface soil analytical results from Law Environmental, Inc. on 25 February for samples collected on 11 February from area C (powerhouse). Data indicates 3 locations with arsenic concentrations above 25 ppm.

### UNIT 2, SEPARATOR

- Severson demobilized contractor's trailer on 25 February.

### UNIT 2, POWERHOUSE

- Bakers of Jerrico Hill excavated material from opening at bottom of stack on 26 February.

\* \* \* \* \*

**Copy to:** D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RB*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 11 March 1993

**SUBJECT:** 8 to 14 March 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The key activities that took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 8 to 14 March 1993 are listed below. ARCO and GeoSyntec Consultants temporarily demobilized from site during the week.

### UNIT 1

- Second Refinery Surface Soil Cleanup submittal sent to EPA on 9 March.

### UNIT 2, SEPARATOR

- Three roll-off boxes containing filtercake and two roll-off box containing residual sludge transported on March 8 by Buffalo Fuel Corporation to Chemical Waste Management RCRA Landfill, located at Model City, New York. Represents removal of last roll-off boxes.

### UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEER*

**DATE:** 9 March 1993

**SUBJECT:** 1 to 7 March 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 1 to 7 March 1993:

### UNIT 1

- Additional surface soil conformational sampling performed by GeoSyntec Consultants in refinery area C (powerhouse) on 3 March. Samples sent to Law Environmental, Inc., Pensacola, Florida to determine arsenic concentrations.

### UNIT 2, SEPARATOR

- Six roll-off boxes containing filtercake transported on 3 March by Buffalo Fuel Corporation to LWD Inc., Culvert City, Kentucky for incineration.
- Two roll-off boxes containing sand and residuals and 1 roll-off box containing filtercake transported on March 5 by Buffalo Fuel Corporation to Chemical Waste Management RCRA Landfill, located at Model City, New York.

### UNIT 2, POWERHOUSE

- John Murphy (AET) and Benito San Pedro, P.E. (Brad Associates) on-site on 1 March to start process of developing a demolition work plan. They collected samples from various areas including turbine room and smoke stack, but not inside main powerhouse area. Samples will be analyzed for the presence of asbestos.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
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J. K. Kimura, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 19 May 1993

**SUBJECT:** 3 to 9 May 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 3 to 9 May 1993:

### UNIT 1

- GeoSyntec Consultants and On-Site Health and Safety performed operation and maintenance activities associated with CELA monitoring wells and piezometers on 5, 6 and 7 May. Water samples taken from monitoring wells MWR-1 to MWR-11 and piezometers P-3 and P-5. Samples sent to Alfred Technical & Analytical Laboratory, Alfred, New York, for analysis. Other parameters measured on-site as part of activities.
- GeoSyntec Consultants collected additional surface soil confirmational samples from nine locations at Refinery Area C (powerhouse) on 4 May, two locations at Refinery Area B (end of swale) and two locations at Refinery Area C on 6 May, and eight locations at Refinery Area G (dike area) on 6 May. Samples sent to Law Environmental, Pensacola, Florida, to determine arsenic concentrations.
- Geo•Con continued pumping water from north temporary holding pond in SLA to sanitary sewer, which leads directly to POTW, until completed on 7 May.

3 to 9 March 1993, Weekly Field Report

19 May 1993

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- Geo•Con cleaned liner in north temporary holding pond between 4 and 7 May.
- Throughout the week Geo•Con determined the thickness of the common fill on the CELA cap at approximately 50 locations by hand excavating through common fill at approximately 25 locations and measuring through the 25 temporary settlement points.
- General site clean-up performed throughout week.

## **UNIT 2, SEPARATOR**

- No activity.

## **UNIT 2, POWERHOUSE**

- GeoSyntec Consultants continued preparation of Powerhouse Remediation Work Plan.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants *TEB*

**DATE:** 24 May 1993

**SUBJECT:** 17 to 23 May 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 17 to 23 May 1993:

### UNIT 1

- GeoSyntec Consultants collected additional surface soil confirmational samples from two locations in Refinery Area B (end of swale), 11 locations in Refinery Area C (powerhouse), and five locations in Refinery Area G (dike area) on 17 and 18 May. Samples sent to Law Environmental, Pensacola, Florida, to determine arsenic concentrations.
- Geo•Con removed liners and backfilled temporary holding ponds in SLA on 19 and 20 May.
- Geo•Con backfilled synthetics anchor trench on east and north sides of CELA and repaired slope on CELA side of west dike between 18 and 21 May.
- Geo•Con imported common fill, for anchor trench backfill and repair of west dike slope, between 18 and 21 May. See table below for quantities.
- Geo•Con started seeding slope on CELA side of west dike on 19 May.
- Geo•Con pressure washed underliner in west drainage channel on 20 and 21 May.

17 to 23 May 1993, Weekly Field Report

24 May 1993

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- Geo•Con performed liner repair work in drainage channel on east, north, and west side of CELA throughout week.
- Geo•Con deployed primary Gundseal and VLDPE on east and north drainage channel on 19 May. See table below for quantities.
- Geo•Con deployed geocomposite on east and north drainage channel on 21 May. See table below for quantities.
- Geo•Con started excavating common fill from along the alignments of the rock chutes and swales on CELA cap on 21 May.
- Geo•Con mobilized Caterpillar D5H Dozer and Caterpillar EL240B track hoe on 17 May, and Gradall 660E on 21 May.
- General site clean up performed on 21 May.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0	9,359
Secondary VLDPE (ft <sup>2</sup> )	0 (Completed)	83,845
Secondary VLDPE (m <sup>2</sup> )	0 (Completed)	7,792
Secondary Gundseal (ft <sup>2</sup> )	0 (Completed)	39,566
Secondary Gundseal (m <sup>2</sup> )	0 (Completed)	3,677



17 to 23 May 1993, Weekly Field Report  
24 May 1993  
Page 3

Item	Quantity This Week	Cumulative Quantity
Primary Gundseal (ft <sup>2</sup> )	9,000	539,132
Primary Gundseal (m <sup>2</sup> )	836	50,105
Primary VLDPE (ft <sup>2</sup> )	12,320	557,771
Primary VLDPE (m <sup>2</sup> )	1,145	51,837
Geocomposite Layer (ft <sup>2</sup> )	6,600	524,730
Geocomposite Layer (m <sup>2</sup> )	613	48,767
Common Fill (tons)	702	46,405

## UNIT 2, SEPARATOR

- Lynch Paving and Contracting Inc., as a subcontractor to Severson, graded and compacted the footprint of the separator on 20 and 21 May.

## UNIT 2, POWERHOUSE

- GeoSyntec Consultants continued preparation of Powerhouse Remediation Work Plan.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
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M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants JEB

**DATE:** 26 May 1993

**SUBJECT:** 10 to 16 May 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 10 to 16 May 1993:

### UNIT 1

- Spring remobilization kick-off meeting for Unit 1 held on site on 11 May.
- Received results on 11 May from the geotextile component of the four geocomposite samples which were obtained on 29 April 1993 from locations immediately adjacent to the locations of the four samples collected on 13 January and tested on 28 January 1993. The results from the April samples have been compared to results from the January samples. The data indicates that no significant degradation of the geotextile occurred due to exposure between 13 January 1993 and 29 April 1993.
- GeoSyntec Consultants received preliminary results on 11 May for nine refinery area confirmational soil samples collected from refinery area C (powerhouse) on 4 May. Results indicate additional locations with arsenic concentrations above 25 ppm.
- GeoSyntec Consultants received preliminary results on 12 May for refinery area confirmational soil samples collected on 6 May from two locations in refinery area B (end of swale), two locations in refinery area C (powerhouse),

and seven locations in refinery area G (dike area). Results indicate some locations in all three areas with arsenic concentrations above 25 ppm.

- Geo•Con hand excavated liner anchor trench on east and north sides of CELA between 10 and 13 May.
- Geo•Con cut holes in perimeter drainage channel underliner on east and north sides of CELA and removed water from subgrade on 13 and 14 May.
- Geo•Con deployed primary Gundseal and VLDPE on east perimeter drainage channel on 14 May. See table below for quantities.
- Geo•Con mobilized Caterpillar IT18F loader on 13 May.

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0	9,359
Secondary Gundseal (ft <sup>2</sup> )	0 (Completed)	39,566
Secondary Gundseal (m <sup>2</sup> )	0 (Completed)	3,677
Secondary VLDPE (ft <sup>2</sup> )	0 (Completed)	83,845
Secondary VLDPE (m <sup>2</sup> )	0 (Completed)	7,792
Primary Gundseal (ft <sup>2</sup> )	6,000	530,132

10 to 16 May 1993, Weekly Field Report

26 May 1993

Page 3

Item	Quantity This Week	Cumulative Quantity
Primary Gundseal (m <sup>2</sup> )	558	49,269
Primary VLDPE (ft <sup>2</sup> )	8,800	545,451
Primary VLDPE (m <sup>2</sup> )	818	50,692
Geocomposite Layer (ft <sup>2</sup> )	0	518,130
Geocomposite Layer (m <sup>2</sup> )	0	48,153
Common Fill (tons)	0	45,703

## UNIT 2, SEPARATOR

- Chris Julin (Sevenson) on site on 13 May to discuss paving separator area.

## UNIT 2, POWERHOUSE

- GeoSyntec Consultants continued preparation of Powerhouse Remediation Work Plan.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
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M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

GQ3201/WE0086

## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants

**DATE:** 2 June 1993

**SUBJECT:** 24 to 30 May 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

*RBN*  
*JEB*

---

The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 24 to 30 May 1993:

### UNIT 1

- GeoSyntec Consultants received preliminary results on 24 May for refinery area confirmational soil samples collected on 17 and 18 May from two locations in Refinery Area B (end of swale), 11 locations in Refinery Area C (powerhouse), and five locations in Refinery Area G (dike area). Results indicate some locations in all three areas with arsenic concentrations above 25 ppm.
- GeoSyntec Consultants collected additional surface soil confirmational samples on 25 May from four locations in Refinery Area B (end of swale), and one location in Refinery Area G (dike area), and on 26 May from 12 locations in Refinery Area C (powerhouse). Samples sent to Law Environmental, Pensacola, Florida, to determine arsenic concentrations.
- Geo•Con continued excavating common fill from along the alignments of the rock chutes and swales on the CELA cap on 24 and 25 May, and completed excavation on 26 May.
- Geo•Con imported common fill on 27 May for anchor trench backfill and to repair the slope on the CELA side of the west dike and on 27 and 28 May for

GQ3201/WE0088

24 to 30 May 1993, Weekly Field Report

2 June 1993

Page 2

CELA cap. See table below for quantities.

- Geo•Con performed liner repair work in drainage channel on north, south, and west sides of CELA throughout week.
- Geo•Con deployed primary Gundseal on west drainage channel on 24 May and primary Gundseal and VLDPE on west and north drainage channel on 25 and 26 May. See table below for quantities.
- Geo•Con deployed geocomposite on west drainage channel on 27 May.
- Received satisfactory results from Murray Associates Inc., Pittsburgh, Pennsylvania, for VLDPE destructive samples DS-75 and DS-76 on 24 May.
- Geo•Con cut VLDPE destructive samples DS-77 and DS-78 on 26 May. Received satisfactory results from Murray Associates Inc., Pittsburgh, Pennsylvania, for these samples on 28 May.
- Geo•Con started excavating anchor trenches for geotextile TS1000 along sides of rock chutes and swales on 26 May and continued throughout week.
- Geo•Con deployed TS1000 geotextile in rock chutes and swales on CELA cap on 27 and 28 May. See table below for quantities.
- Geo•Con imported and stockpiled bedding stone in SLA on 27 and 28 May. See table below for quantities.
- Wood chip stock pile at northwest end of CELA loaded on trucks and dumped at various locations on CELA on 26 May. Wood chips will be mixed with topsoil and spread on CELA.
- Geo•Con mobilized Caterpillar 966F loader on 28 May.

GQ3201/WE0088

24 to 30 May 1993, Weekly Field Report

2 June 1993

Page 3

Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0 (Completed)	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0 (Completed)	9,359
Channel Geotextile (TS1000) (ft <sup>2</sup> )	15,000	15,000
Channel Geotextile(TS1000) (m <sup>2</sup> )	1,394	1,394
Secondary VLDPE (ft <sup>2</sup> )	0 (Completed)	83,845
Secondary VLDPE (m <sup>2</sup> )	0 (Completed)	7,792
Secondary Gundseal (ft <sup>2</sup> )	0 (Completed)	39,566
Secondary Gundseal (m <sup>2</sup> )	0 (Completed)	3,677
Primary Gundseal (ft <sup>2</sup> )	24,000 (Completed)	563,132
Primary Gundseal (m <sup>2</sup> )	2,230 (Completed)	52,336
Primary VLDPE (ft <sup>2</sup> )	18,998 (Completed)	576,769
Primary VLDPE (m <sup>2</sup> )	1,766 (Completed)	53,603
Geocomposite Layer (ft <sup>2</sup> )	10,000 (Completed)	534,730
Geocomposite Layer (m <sup>2</sup> )	929 (Completed)	49,696
Bedding Stone (tons)	541	541
Common Fill (tons)	1,620	48,025

GQ3201/WE0088

24 to 30 May 1993, Weekly Field Report

2 June 1993

Page 4

## **UNIT 2, SEPARATOR**

- Lynch Paving and Contracting Inc., as a subcontractor to Severson, sprayed asphalt tack coat on the separator footprint on 27 May and started paving on 28 May.

## **UNIT 2, POWERHOUSE**

- No activity.

\* \* \* \* \*

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M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

GQ3201/WE0088



## WEEKLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants JEB

**DATE:** 9 June 1993

**SUBJECT:** 31 May to 6 June 1993, Weekly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following key activities took place at the Sinclair Refinery Site, Wellsville, New York, during the week of 31 May to 6 June 1993:

### UNIT 1

- GeoSyntec Consultants received preliminary results on 2 June for refinery area confirmational soil samples collected on 25 and 26 May from 12 locations in Refinery Area C (powerhouse), and one location in Refinery Area G (dike area). Results indicate one location in Refinery Area C with arsenic concentrations above 25 ppm.
- GeoSyntec Consultants collected additional surface soil confirmational samples on 4 June from six locations in Refinery Area C (powerhouse). Samples sent to Law Environmental Inc., Pensacola, Florida, to determine arsenic concentrations.
- Geo•Con imported common fill on 1, 2, and 3 June for CELA cap and

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31 May to 6 June 1993, Weekly Field Report

9 June 1993

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perimeter grading on west side of CELA. See table below for quantities.

- Geo•Con deployed TS1000 geotextile in rock chutes and swales on 1, 2, and 3 June and in perimeter drainage channel on 2, 3, and 4 June. See table below for quantities.
- Bedding stone was imported and stockpiled in SLA on 2, 3, and 4 June and placed in rock chutes and swales on CELA cap on 1, 2, and 3 June and in perimeter drainage channel starting on 2 June and continuing throughout week. See table below for quantities.
- Geo•Con placed rip-rap in rock chutes and swales on CELA cap on 1 and 2 June and in perimeter drainage channel starting on 3 June and continuing throughout week.
- Topsoil was imported on 3, 4, and 5 June, stockpiled at north end of CELA on 3 June and spread at south end of CELA on 4 and 5 June. See table below for quantities.
- Geo•Con placed permanent settlement plates on CELA cap on 1 and 2 June. Settlement plates will be surveyed at a later date.
- To prevent erosion, Geo•Con placed jute mat and seeded the CELA side of the west dike along the north and northeast sides of the CELA on 2 June.
- Empire Soils Investigations Inc. visited the site on 4 June to extend piezometer P-6 and pipe sleeve PS-5 at north end of CELA. Work was not completed.

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Item	Quantity This Week	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0 (Completed)	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0 (Completed)	9,359
Channel Geotextile (TS1000) (ft <sup>2</sup> )	69,000	84,000
Channel Geotextile(TS1000) (m <sup>2</sup> )	6,413	7,807
Secondary VLDPE (ft <sup>2</sup> )	0 (Completed)	83,845
Secondary VLDPE (m <sup>2</sup> )	0 (Completed)	7,792
Secondary Gundseal (ft <sup>2</sup> )	0 (Completed)	39,566
Secondary Gundseal (m <sup>2</sup> )	0 (Completed)	3,677
Primary Gundseal (ft <sup>2</sup> )	24,000 (Completed)	563,132
Primary Gundseal (m <sup>2</sup> )	2,230 (Completed)	52,336
Primary VLDPE (ft <sup>2</sup> )	18,998 (Completed)	576,769
Primary VLDPE (m <sup>2</sup> )	1,766 (Completed)	53,603
Geocomposite Layer (ft <sup>2</sup> )	10,000 (Completed)	534,730
Geocomposite Layer (m <sup>2</sup> )	929 (Completed)	49,696
Bedding Stone (tons)	638	1,179
Topsoil (tons)	3,211	3,211
Common Fill (tons)	4,466	52,491

GQ3201/WE0090

## **UNIT 2, SEPARATOR**

- Lynch Paving and Contracting Inc., as a subcontractor to Severson, continued paving separator footprint on 1 June and completed paving on 2 June. Sealer will be spread on asphalt at a later date.

## **UNIT 2, POWERHOUSE**

- No activity.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## **APPENDIX D**

### **GEOSYNTEC CONSULTANTS MONTHLY FIELD REPORTS**

## MEMORANDUM

TO: Mr. Robert E. Ivy, ARCO

FROM: Roger B. North, P.E., GeoSyntec Consultants RBN

DATE: 13 July 1992

SUBJECT: June 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following main activities that were performed at the Sinclair Refinery Site, Wellsville, New York, during June 1992.

- Geo Con drilled two test borings along slurry wall alignment to confirm the depth of the clay layer and to obtain soil samples to check the soil-bentonite backfill mix design.
- Existing monitoring wells shown on drawing AR-12 grouted with exception of MW-12 and MW-17 which could not be located.
- Perimeter air monitoring initiated on Monday 22 June.
- Powerhouse walk through with asbestos inspector from AET on Wednesday 24 June.
- Prebid meeting for powerhouse remediation on Thursday 25 June.
- Prebid meeting for separator remediation on Thursday 25 June.
- Sedimentation basin constructed and storm water management initiated.
- Placement of traffic cap and working platform started at north end around sedimentation basin.

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13 July 1992  
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- Site cleared of trees and grubbing started.
- Partial mobilization of equipment and materials, including bentonite, for slurry wall construction.
- Agreed with EPA the locations at National Fuels to be soil sampled and tested for lead and arsenic; 21 locations identified.
- Approval testing of off-site fill and water started.

\* \* \* \* \*

copy to: David E. Grooms, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 6 August 1992

**SUBJECT:** July 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of July 1992.

- Slurry wall equipment mobilized to site and assembled. Slurry wall construction started on 9 July. Following summarizes progress to end July.

- Excavation from Station 3+00 to 0+00 (28+43) and 28+43 to 14+80.
- Depth of trench varied from 25 ft (7.6 m) (Station 19+00 to 18+00) to 43 ft (13.1) (Station 1+80 to 1+60).

Quantity Excavated	July	Cumulative
Length (ft)	1633	1633
Length (m)	497.9	497.9
Length (%)	65.8	65.8
Area (ft <sup>2</sup> )	54,772	54,772
Area (m <sup>2</sup> )	5,092	5,092
Volume (yd <sup>3</sup> )	4,783	4,783
Volume (m <sup>3</sup> )	3,660	3,660



July 1992 Monthly Field Report  
6 August 1992  
Page 2

- Placement of subgrade, traffic cap and working pad continued around slurry wall alignment.
- Stability analyses performed to analyze slurry wall in proximity to dike. Concluded stability could be maintained using a minimum slurry density of 85 pcf.
- Clearing and grubbing of the CELA area completed on 2 July.
- Clearing and grubbing of the refinery Area A, adjacent to Current Controls' building completed; Geo Con over-grubbed area.
- Clearing and grubbing around separator tanks performed on 16 July.
- Test pad removed from CELA.
- General grading of CELA cap underway.
- Stump grinding started on 14 July and completed on 20 July.
- Drum carcasses stockpiled within CELA. Drums from staging area to the north of the CELA transported to CELA between 15 and 17 July. (Three drums containing chemicals left in staging area for off-site disposal). All drums shredded between 21 and 24 July.
- Community Air Monitoring Plan developed.
- Liner removed from SLA material and shredded; completed on 24 July.
- GeoSyntec Consultants sampled soils around, but not within, refinery Areas A, B, E, F and G on 6 and 7 July. Samples tested by Law Environmental Inc., using ICP (inductively coupled plasma) at QA level 3. Three arsenic exceedences (>25 ppm) in Area A (adjacent to Current Controls' building). Area A enlarged to encompass the three locations.

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- GeoSyntec Consultants sampled soils outside National Fuels office on 29 July. Laboratory analyses not completed in July.
- Textured 60 mil VLDPE geomembrane manufactured by Gundle Lining Systems Inc. starting on 22 July. GeoSyntec Consultants at Gundle plant for conformance sampling. Conformance test results indicate all samples meet specifications.
- Gundseal (low permeability geosynthetic) delivery started on 24 July.
- Geo Con reported that survey estimates indicate that cap capacity may be on order 22,000 yd<sup>3</sup> less than required. Resurvey of CELA cap initiated on 25 July.

\* \* \* \* \*

copy to: David E. Grooms, ARCO  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Mike Hrywnak, COE

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*

**DATE:** 2 September 1992

**SUBJECT:** August 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of August 1992.

### UNIT 1

- Slurry wall construction until 10 August. Construction halted at Station 5+30; the section from Station 3+00 to 5+30 remains to be constructed. Trench completely filled with soil-bentonite backfill and the trench bentonite slurry pumped into a temporary above ground holding pond. Following summarizes progress to end August.

Quantity Excavated	August	Cumulative
Length (ft)	950	2583
Length (m)	289	787
Length (%)	25.2	91
Area (ft <sup>2</sup> )	28,678	83,450
Area (m <sup>2</sup> )	2,661	7,753
Volume (yd <sup>3</sup> )	2,545	7,328
Volume (m <sup>3</sup> )	1,943	5,603

August 1992 Monthly Field Report  
2 September 1992  
Page 2

- Subgrade, traffic cap and working pad completed around slurry wall alignment.
- GeoSyntec Consultants completed adjustment of CELA cap geometry to provide approximately 19,500 yd<sup>3</sup> additional capacity.
- CELA grading being performed to adjusted cap geometry. Grading continues.
- Stabilization of low strength soils in the CELA started on 20 August, by mixing high early strength cement with waste material to a depth of approximately 3 ft. Approximately 6,500 yd<sup>3</sup> completed by month's end. Stabilization continues.
- Refinery Areas A to G excavated, backfilled, seeded, fertilized and mulched. Confirmational sampling around the excavated areas started; to be completed in September. Excavated soil from Areas A to G placed in north end of CELA. Strength testing will be performed in September.
- Laboratory analyses of surface soil delineation samples from National Fuels' property completed. Results show arsenic and lead concentrations below action levels.
- Delivery of gas vent stone started on 6 August; stockpiled in staging area.
- Delivery of Gundseal (low permeability geosynthetic), geotextile (Polyfelt TS700 and TS1000), and 60-mil textured VLDPE geomembrane completed.
- Gas vent pipe delivered on 20 August; only fittings still outstanding.

August 1992 Monthly Field Report  
2 September 1992  
Page 3

## UNIT 2

- Pre-mobilization meeting held on 14 August and pre-construction meeting held on 20 August.
- Severson started to establish site facilities.
- Surface debris cleared from site and stockpiled at east edge of site.

\* \* \* \* \*

copy to: David E. Grooms, ARCO  
Mike Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Collin P. Sukow, GeoSyntec Consultants *CS*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 1 October 1992

**SUBJECT:** September 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of September 1992.

### UNIT 1

- CELA grading continues to be performed to adjusted cap geometry.
- Stabilization of low strength soils in the CELA continues through the month of September, by mixing high early strength cement with waste material to a depth of approximately 3 ft. Approximately 13,400 yd<sup>3</sup> of soil stabilized by month's end.
- Shelby tube samples taken from stabilized areas in CELA and tested for unconfined compressive strength.
- Conformation sampling around refinery areas A to G continued, and was completed on 17 September.
- Gas vent pipe fittings delivered on 11 September.
- Grading of CELA cap drainage channel started on 31 August at

station 27+80 and was completed to station 17+00 by 30 September.

- Placement of Gundseal and 60-mil thick VLDPE geomembrane started on 9 September and the underliner has been completed from station 27+80 to station 17+00 by 30 September. Panels U-1 to U-54 were placed on south and west sides of CELA. Approximately 37,948 ft<sup>2</sup> (3527 m<sup>2</sup>) of liner was placed entailing approximately 1691 linear ft (515 m) of seam.
- Installation of piezometers within CELA and monitoring well around perimeter of CELA started on 17 September; to be completed in October.
- 42 inch diameter corrugated metal pipe and flap valve for culvert at north end of CELA delivered on 1 September.
- 36 inch HDPE pipe placed around power pole in CELA on 19 September.
- Placement of 7 oz. Polyfelt geotextile started on 25 September. 60,900 ft<sup>2</sup> (5660 m<sup>2</sup>) of geotextile was deployed, entailing 3900 linear ft (1189 m) of seam by 30 September.
- Delivery of gas vent stone continued in September; stone stockpiled in staging area, and also placed directly in CELA.
- Placement of gas vent stone started on 25 September. Approximately 2,767 tons of stone was placed.

## UNIT 2

- Site facilities (i.e. perimeter fencing, site trailers with utilities, and graveled entrance and support zone) established.

- 42 inch diameter reinforced concrete bypass pipe sections delivered on 4 and 11 September.
- Surface debris hauled from site to local landfill by LaForge K.S. Excavating Inc. on 12 September.
- Temporary bypass pumping started on 16 September and will continue until permanent bypass is complete.
- Concrete plugs placed in all inflow and outflow pipes of Separator.
- Two monitoring wells near Separator were decommissioned on 18 September as per Ebasco specifications.
- Modutanks delivered and assembled.
- TCLP analytical results for bypass composite samples received on 21 September.
- ARCO received EPA approval to proceed with Separator remediation on 28 September.
- Excavation for permanent bypass started on 29 September at proposed manhole 4. Excavated material being hauled to CELA. Village of Wellsville water line found during excavation for proposed manhole 4, area was backfilled. Manhole 4 was moved approximately 20 feet west to location of brick shed.
- Brick shed demolished and excavation for permanent bypass continued on 30 September.
- Construction of manhole 4 started on 30 September.
- Pumping of aqueous phase from Separator to Modutank started on 29 September; approximately 500,500 gal of liquid was pumped into



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1 October 1992  
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Modutank.

- Submittals for powerhouse remediation were received and reviewed in September.

\* \* \* \* \*

copy to: David E. Grooms, ARCO  
Mike Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Roger B. North, P.E., GeoSyntec Consultants

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN.*

**DATE:** 7 November 1992

**SUBJECT:** October 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of October 1992.

### UNIT 1

- Slurry wall construction resumed on 1 October at Station 5+30 and completed on 3 October at Station 2+70. Following table summarizes overall slurry wall quantities.

Quantity Excavated	October	Cumulative
Length (ft)	260	2843
Length (m)	79	867
Length (%)	9.1	100
Area (ft <sup>2</sup> )	8,550	91,690
Area (m <sup>2</sup> )	794	8,518
Volume (yd <sup>3</sup> )	753	8,055
Volume (m <sup>3</sup> )	576	6,158

- Soil-bentonite shelby tube samples obtained by Geo-Con and GeoSyntec Consultants. Results all indicated hydraulic conductivities less than  $1 \times 10^{-7}$  cm/sec.
- CELA grading continues; all but north end of CELA to final grade by end month.
- Stabilization of low strength soils in the CELA completed by 11 October. Approximately 13,746 yd<sup>3</sup> of soil stabilized in total.
- Installation of monitoring wells and piezometers completed by Empire Soils Investigations Inc. Monitoring well MWR-11 developed; other monitoring wells and all piezometers yet to be developed.
- Delivery of gas vent stone continued throughout month and placed directly in CELA.
- Polyfelt TS700 geotextile and gas vent stone continued to be deployed throughout month. See table below for quantities.
- Placement of gas vent pipes started on 13 October.
- Placement of underliner Gundseal and 60-mil thick VLDPE geomembrane continued throughout month from approximately Station 17+00 to Station 2+50 around perimeter of CELA. See table below for quantities.
- Placement of Gundseal and 60-mil thick VLDPE geomembrane on CELA started on 20 October; placed from gridline N220 (south end of CELA) to gridline N770. See table below for quantities.

Item	Cumulative Quantity
Gas Vent Stone (tons)	26,183
Geotextile (TS700) (ft <sup>2</sup> )	649,899
Geotextile (TS700) (m <sup>2</sup> )	60.378
VLDPE in Channel (ft <sup>2</sup> )	66,088
VLDPE in Channel (m <sup>2</sup> )	6,142
Gundseal in CELA (ft <sup>2</sup> )	78,042
Gundseal in CELA (m <sup>2</sup> )	7,250
VLDPE in CELA (ft <sup>2</sup> )	83,754
VLDPE in CELA (m <sup>2</sup> )	7,781

- Temporary ground-water holding pond constructed in SLA and lined with 60-mil HDPE on 20 October.
- Sedimentation pond at north end CELA removed on 21 October.
- 42 in. diameter CMP culvert and flap valve at north end CELA laid, backfilled and rip-rap placed between 13 and 19 October.
- Inspection of east and west dikes performed on 21 October for Operation and Maintenance Plan for Genesee River channel.
- RMC Environmental Services was unable to validate Ceimic Corporation laboratory test results on Geo-Con's conformational samples taken in August and September from Refinery Areas A to G.
- Retesting of Geo-Con's conformational samples started by Law

Environmental on 13 October, completed on 26 October. Indicated additional locations with arsenic concentrations above 25 ppm in Refinery Areas A, B, C, D and G.

- Additional conformational sampling performed in Areas A, B, C, D and G by GeoSyntec Consultants between 28 and 30 October. Samples sent to Law Environmental for analysis. Initial results from Area A indicate additional locations with arsenic concentrations above 25 ppm.

## **UNIT 2, SEPARATOR**

- Construction of permanent by-pass around Separator completed. Included: manholes 1 to 4; 42 in. diameter concrete pipe (between manholes 2 and 3, and 3 and 4); 18 in. diameter pipe (between manholes 1 and 2); connections from existing lines; and backfilling.
- Hydrostatic tests performed with satisfactory results on the 42 in. and 18 in. diameter concrete by-pass pipes.
- Noco Energy Corp. removed 900 gal. of oil from Separator on 12 October.
- Removal of aqueous phase from Separator completed on 13 October. See attached table for quantities.
- Filter plant treatment of aqueous phase started on 8 October and continued throughout month. See attached table for quantities.
- Treated aqueous phase transported to POTW on 27 October. See attached table for quantities.
- Central Industries mobilized filter press on 6 October. Filter

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press sludge treatment started on 8 October and continued throughout month. Filter cake deposited into roll-offs and filtrate discharged to 100,000 gal. modutank. See attached table for quantities.

- Steam cleaning of debris in Separator started on 20 October; work continues.

#### UNIT 2, POWERHOUSE

- Security fence erected.
- Visual inspections of powerhouse roof performed by Roy R. Pederson, P.E., E & M Engineers and Surveyors, for OHM on 14 October and by S. J. Guynes, ARCO, on 22 October.
- Samples of roofing materials, taken by Asbestos Control Management, Inc. on 26 October from powerhouse roof, shown to contain asbestos.

\* \* \* \* \*

#### Attachment

Copy to: David E. Grooms, ARCO  
Mike Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants  
John G. Fox, GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER		W/E 11 OCTOBER		W/E 18 OCTOBER	
	WEEK	TOTAL	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER		W/E 1 NOVEMBER	
	WEEK	TOTAL	WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360
Weight filter-cake off-site (tons)	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610
				by 29 Oct
Volume filtrate treated (gal.)	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0

## MONTHLY FIELD REPORT

TO: Mr. Robert E. Ivy, ARCO

FROM: Roger B. North, P.E., GeoSyntec Consultants *RBN*

DATE: 5 December 1992

SUBJECT: November 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of November 1992.

### UNIT 1

- GeoSyntec Consultants obtained two shelly tube samples of soil-bentonite backfill from top slurry wall at Station 0+00 on 23 November. Results indicated hydraulic conductivities less than  $1 \times 10^{-7}$  cm/sec.
- GeoSyntec Consultants obtained two shelly tube samples of traffic cap backfill from slurry wall alignment at Station 28+00 on 23 November. Results indicated hydraulic conductivities less than  $1 \times 10^{-5}$  cm/sec.
- Geometry of cap changed in northwest portion of CELA. Elevation raised by 2 ft along edge channel.
- CELA grading continued and completed on 21 November.
- Delivery of gas vent stone continued, stone placed directly in CELA. Final delivery made on 25 November. Grading of gas vent stone completed on 25 November. See table below and attachment for quantities.
- Deployment of Polyfelt TS700 geotextile continued throughout month. Some TS1000 used in lieu of TS700 on 20 and 21 November



for secondary layer. See table below and attachment for quantities.

- Placement of gas vent pipes completed on 10 November.
- Underliner completed on 20 November with placement of Gundseal and 60-mil thick VLDPE geomembrane from approximately Station 2+50 to Station 27+50 around perimeter of CELA. See table below and attachment for quantities.
- Placement of Gundseal and 60-mil thick VLDPE geomembrane on CELA continued throughout month; approximately placed from gridline N770 to gridline N1165 (north end of site) on east of gridline E650, and to gridline N900 on west of gridline E650. See table below and attachment for quantities.
- Placement of geocomposite drainage layer over VLDPE geomembrane started on 10 November and continued throughout month. See table below and attachment for quantities.
- Common fill placement started on 11 November at south end CELA and continued throughout month. See table below and attachment for quantities.

Item	November	Cumulative Quantity
Gas Vent Stone (tons)	3,912	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	385,600	1,037,218
CELA Geotextile (TS700) (m <sup>2</sup> )	35,823	96,358
CELA Geotextile (TS1000) (ft <sup>2</sup> )	18,200	18,200
CELA Geotextile (TS1000) (m <sup>2</sup> )	1,691	1,691
VLDPE in Channel (ft <sup>2</sup> )	11,065	83,845
VLDPE in Channel (m <sup>2</sup> )	1,028	7,792

Item	November	Cumulative Quantity
Gundseal in CELA (ft <sup>2</sup> )	249,905	418,707
Gundseal in CELA (m <sup>2</sup> )	23,217	38,899
VLDPE in CELA (ft <sup>2</sup> )	245,256	430,914
VLDPE in CELA (m <sup>2</sup> )	22,785	40,033
Geocomposite Layer (ft <sup>2</sup> )	279,870	279,870
Geocomposite Layer (m <sup>2</sup> )	26,001	26,001
Common Fill (tons)	23,403	23,403

- 4 in. diameter corrugated slotted PVC pipe installed in sand layer along alignment of perimeter channel on 6 and 7 November between Stations 7+50 and 18+00.
- Refinery surface soils excavated on 3, 4 and 5 November, from cells outside Areas A (Current Controls), C (powerhouse) and D (Otis Eastern) that conformational testing indicated had arsenic concentrations greater than 25 ppm. Excavated soils transported to CELA. Excavated locations backfilled. Excavation terminated when CELA considered to be at full capacity.
- First temporary ground-water holding pond filled to capacity on 3 November. Second temporary ground-water holding pond, lined with 60-mil HDPE, constructed in SLA area to south of first pond between 6 and 8 November. Pumping of water to second pond started on 8 November. Underliner preparation at northern end of CELA prevented between 3 and 8 November due to ponded water.
- Water samples taken from both temporary ground-water holding ponds on 24 November. Analyses indicated water may be discharged directly to POTW without treatment.

- RMC Environmental Services validated Law Environmental results of Refinery surface soil samples obtained by Geo-Con in September. Conformational Sampling Program report sent to EPA and NYDEC on 23 November.
- Additional conformational sampling performed by GeoSyntec Consultants in Areas A (Current Controls), B (end swale), C (powerhouse), D (Otis Eastern) and G (dike area) on 4, 5 and 10 November. Samples sent to Law Environmental for analysis. Results indicate additional locations with arsenic concentrations above 25 ppm.
- Three drums transported off-site on 5 November to Model City, New York, and West Carrollton, Ohio.

## UNIT 2, SEPARATOR

- Mode of discharge of treated aqueous phase and filtrate to POTW changed from truck transport to direct discharge into sanitary sewer on 9 November.
- Filter plant treatment of aqueous phase completed on 4 November. Treated aqueous phase discharged to POTW on 9 and 13 November. See attached table for quantities.
- Filter plant treatment of filtrate started on 4 November and continued throughout month. Treated filtrate discharged to POTW on 13 November. See attached table for quantities.
- Central Industries completed filter press treatment of sludge on 23 November. Filter cake deposited into roll-offs (29 total) and filtrate discharged to 100,000 gal. modutank. See attached table for quantities.
- Steam cleaning of debris in Separator continued throughout month.
- Hydroblasting unit mobilized to site on 10 November; trial hydroblasting of separator walls performed on 11 November. Sand

blasting unit assembled on site on 12 November; trial sand blasting of separator walls performed on 12 and 13 November. Use of hydroblasting unit discontinued following trials.

- Sandblasting of separator walls continued throughout month. Approximately 7 cells (walls and floors) sandblasted.
- Vacuum "Guzzler" truck mobilized on 2 November and used throughout month to remove from separator: (i) material, such as sludge covered rocks and small debris, which could neither be removed by filter press pump nor steam cleaned in place; and (ii) sand blasting waste. Sludge covered rocks and small debris placed in 1 roll-off and sand blasting waste placed in 1 roll-off.
- Chip sample taken on 23 November from north wall of east cell of center separator train, approximately 2.5 ft above base of cell. EPA site representative informed on 20 November of intent to take sample; no EPA representative present to observe sampling. Chip sample sent to General Testing for total hydrocarbon analysis.

## UNIT 2, POWERHOUSE

- Security fence erection completed on east side powerhouse.
- Load testing of powerhouse roof performed by OHM and E & M Engineers and Surveyors, between 11 and 13 November.
- OHM demobilized from site.

\* \* \* \* \*

## Attachment

Copy to: David A. Christensen, P.E., ARCO  
David E. Grooms, ARCO  
Jennifer K. Kimura, ARCO  
Mike Hrywnak, COE

November 1992 Monthly Field Report  
5 December 1992  
Page 6

Lynn B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants  
John G. Fox, GeoSyntec Consultants  
Andrew S. Kositsky, GeoSyntec Consultants

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNDOSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Sep		0		0		0		0		0		0		0		0
09-Sep		0		0		0		0	145	145	3,190	3,190	1,428	1,428		0
10-Sep		0		0		0		0	128	273	2,816	6,006		1,428		0
11-Sep		0		0		0		0		273		6,006		1,428		0
12-Sep		0		0		0		0	416	689	9,152	15,158		1,428		0
13-Sep		0		0		0		0		689		15,158		1,428		0
14-Sep		0		0		0		0	96	785	2,112	17,270		1,428		0
15-Sep		0		0		0		0	224	1,009	4,928	22,198	1,920	3,348		0
16-Sep		0		0		0		0		1,009		22,198		3,348		0
17-Sep		0		0		0		0	119	1,128	2,982	25,180	900	4,248		0
18-Sep		0		0		0		0	242	1,370	5,450	30,630	1,584	5,832		0
19-Sep		0		0		0		0		1,370		30,630		5,832		0
20-Sep		0		0		0		0		1,370		30,630		5,832		0
21-Sep		0		0		0		0		1,370		30,630		5,832		0
22-Sep		0		0		0		0		1,370		30,630		5,832		0
23-Sep		0		0		0		0		1,370		30,630		5,832		0
24-Sep		0		0		0		0		1,370		30,630		5,832		0
25-Sep		0	18,000	18,000		0		0		1,370		30,630		5,832		0
26-Sep		0		18,000		0		0		1,370		30,630		5,832		0
27-Sep		0		18,000		0		0		1,370		30,630		5,832		0
28-Sep		0	20,700	38,700		0		0		1,370		30,630		5,832		0
29-Sep	3,900	3,900		38,700		0		0	210	1,580	4,620	35,250		5,832		0
30-Sep		3,900	26,919	65,619		0		0		1,580		35,250		5,832		0
01-Oct	2,520	6,420	37,800	103,419		0		0		1,580		35,250		5,832		0
02-Oct	3,600	10,020	54,000	157,419		0		0		1,580		35,250		5,832		0
03-Oct	720	10,740	10,800	168,219		0		0	350	1,930	7,700	42,950	3,961	9,793		0
04-Oct		10,740		168,219		0		0		1,930		42,950		9,793		0
05-Oct	1,080	11,820	16,200	184,419		0		0		1,930		42,950		9,793		0
06-Oct	2,899	14,719	43,485	227,904		0		0		1,930		42,950		9,793		0
07-Oct	1,798	16,517	26,970	254,874		0		0		1,930		42,950		9,793		0

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Oct		16,517		254,874		0		0	213	2,143	8,690	51,640	4,888	14,681		0
09-Oct		16,517		254,874		0		0		2,143		51,640		14,681		0
10-Oct	3,132	19,649	46,980	301,854		0		0		2,143		51,640		14,681		0
11-Oct		19,649		301,854		0		0		2,143		51,640		14,681		0
12-Oct	1,349	20,998	20,235	322,089		0		0		2,143		51,640		14,681		0
13-Oct		20,998		322,089		0		0		2,143		51,640		14,681		0
14-Oct	2,854	23,852	42,810	364,899		0		0		2,143		51,640		14,681		0
15-Oct		23,852		364,899		0		0	200	2,343	4,400	56,040	2,400	17,081		0
16-Oct	1,700	25,552	25,500	390,399		0		0		2,343		56,040		17,081		0
17-Oct	4,361	29,913	65,417	455,816		0		0		2,343		56,040		17,081		0
18-Oct		29,913		455,816		0		0		2,343		56,040		17,081		0
19-Oct	1,556	31,469	23,340	479,156		0		0		2,343		56,040		17,081		0
20-Oct	100	31,569	1,500	480,656		0		0		2,343		56,040		17,081	7,542	7,542
21-Oct		31,569		480,656		0		0		2,343		56,040		17,081		7,542
22-Oct		31,569		480,656		0		0		2,343		56,040		17,081	33,000	40,542
23-Oct		31,569		480,656		0		0		2,343		56,040		17,081	30,000	70,542
24-Oct	900	32,469	13,500	494,156		0		0		2,343		56,040		17,081	7,500	78,042
25-Oct		32,469		494,156		0		0		2,343		56,040		17,081		78,042
26-Oct	927	33,396	13,905	508,061		0		0		2,343		56,040		17,081	19,035	97,077
27-Oct	1,337	34,733	20,057	528,118		0		0		2,343	4,400	60,440	3,000	20,081	3,000	100,077
28-Oct	615	35,348	9,225	537,343		0		0		2,343		60,440		20,081	45,000	145,077
29-Oct	5,521	40,869	77,420	614,763		0		0	200	2,543	4,400	64,840	4,000	24,081		145,077
30-Oct	2,157	43,026	32,355	647,118		0		0	179	2,722	3,940	68,780	2,285	26,366	15,000	160,077
31-Oct	300	43,326	4,500	651,618		0		0	182	2,904	4,000	72,780	1,000	27,366	8,725	168,802
01-Nov		43,326		651,618		0		0	100	3,004	2,200	74,980		27,366		168,802
02-Nov		43,326		651,618		0		0		3,004		74,980		27,366		168,802
03-Nov		43,326		651,618		0		0		3,004		74,980		27,366	33,000	201,802
04-Nov	1,200	44,526	18,000	669,618		0		0		3,004		74,980		27,366	16,980	218,782
05-Nov	408	44,934	6,120	675,738		0		0		3,004		74,980		27,366	13,695	232,477
06-Nov	4,267	49,201	64,000	739,738		0		0		3,004		74,980		27,366		232,477





MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
28-Jul		0		0		0		0		0		0
29-Jul		0		0		0		0		0		0
30-Jul		0		0		0		0		0		0
31-Jul		0		0		0		0		0		0
01-Aug		0		0		0		0		0		0
02-Aug		0		0		0		0		0		0
03-Aug		0		0		0		0		0		0
04-Aug		0		0		0		0		0		0
05-Aug		0		0		0		0		0		0
06-Aug		0		0		0		0		0	670	670
07-Aug		0		0		0		0		0	971	1,641
08-Aug		0		0		0		0		0		1,641
09-Aug		0		0		0		0		0		1,641
10-Aug		0		0		0		0		0	628	2,269
11-Aug		0		0		0		0		0	441	2,710
12-Aug		0		0		0		0		0	152	2,862
13-Aug		0		0		0		0		0		2,862
14-Aug		0		0		0		0		0		2,862
15-Aug		0		0		0		0		0		2,862
16-Aug		0		0		0		0		0		2,862
17-Aug		0		0		0		0		0		2,862
18-Aug		0		0		0		0		0	703	3,564
19-Aug		0		0		0		0		0	524	4,088
20-Aug		0		0		0		0		0	369	4,458
21-Aug		0		0		0		0		0	556	5,013
22-Aug		0		0		0		0		0		5,013
23-Aug		0		0		0		0		0		5,013
24-Aug		0		0		0		0		0	402	5,415
25-Aug		0		0		0		0		0		5,415
26-Aug		0		0		0		0		0		5,415

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
27-Aug		0		0		0		0		0		5,415
28-Aug		0		0		0		0		0		5,415
29-Aug		0		0		0		0		0		5,415
30-Aug		0		0		0		0		0		5,415
31-Aug		0		0		0		0		0		5,415
01-Sep		0		0		0		0		0		5,415
02-Sep		0		0		0		0		0		5,415
03-Sep		0		0		0		0		0		5,415
04-Sep		0		0		0		0		0		5,415
05-Sep		0		0		0		0		0		5,415
06-Sep		0		0		0		0		0		5,415
07-Sep		0		0		0		0		0		5,415
08-Sep		0		0		0		0		0	121	5,536
09-Sep		0		0		0		0		0		5,536
10-Sep		0		0		0		0		0		5,536
11-Sep		0		0		0		0		0		5,536
12-Sep		0		0		0		0		0		5,536
13-Sep		0		0		0		0		0		5,536
14-Sep		0		0		0		0		0		5,536
15-Sep		0		0		0		0		0		5,536
16-Sep		0		0		0		0		0		5,536
17-Sep		0		0		0		0		0		5,536
18-Sep		0		0		0		0		0		5,536
19-Sep		0		0		0		0		0		5,536
20-Sep		0		0		0		0		0		5,536
21-Sep		0		0		0		0		0		5,536
22-Sep		0		0		0		0		0		5,536
23-Sep		0		0		0		0		0		5,536
24-Sep		0		0		0		0		0		5,536
25-Sep		0		0		0		0		0		5,536

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
26-Sep		0		0		0		0		0		5,536
27-Sep		0		0		0		0		0		5,536
28-Sep		0		0		0		0		0		5,536
29-Sep		0		0		0		0		0		5,536
30-Sep		0		0		0		0		0	457	5,992
01-Oct		0		0		0		0		0	709	6,701
02-Oct		0		0		0		0		0	622	7,323
03-Oct		0		0		0		0		0	856	8,178
04-Oct		0		0		0		0		0		8,178
05-Oct		0		0		0		0		0	784	8,962
06-Oct		0		0		0		0		0	809	9,771
07-Oct		0		0		0		0		0	871	10,642
08-Oct		0		0		0		0		0	607	11,249
09-Oct		0		0		0		0		0	1,154	12,403
10-Oct		0		0		0		0		0	928	13,331
11-Oct		0		0		0		0		0		13,331
12-Oct		0		0		0		0		0	1,197	14,527
13-Oct		0		0		0		0		0	1,434	15,961
14-Oct		0		0		0		0		0	911	16,872
15-Oct		0		0		0		0		0	934	17,805
16-Oct		0		0		0		0		0	1,328	19,133
17-Oct		0		0		0		0		0	738	19,871
18-Oct		0		0		0		0		0		19,871
19-Oct		0		0		0		0		0	2,025	21,896
20-Oct	431	431	9,482	9,482		0		0		0	1,621	23,516
21-Oct		431		9,482		0		0		0	1,546	25,062
22-Oct	1,680	2,111	36,960	46,442		0		0		0		25,062
23-Oct	1,396	3,507	30,712	77,154		0		0		0		25,062
24-Oct	300	3,807	7,040	84,194		0		0		0		25,062
25-Oct		3,807		84,194		0		0		0		25,062

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
26-Oct	1,097	4,904	24,134	108,328		0		0		0		25,062
27-Oct	200	5,104		108,328		0		0		0		25,062
28-Oct	2,089	7,193	45,958	154,286		0		0		0		25,062
29-Oct	374	7,567	8,228	162,514		0		0		0		25,062
30-Oct	494	8,061	10,868	173,382		0		0		0	544	25,606
31-Oct	558	8,619	12,276	185,658		0		0		0	577	26,183
01-Nov		8,619		185,658		0		0		0		26,183
02-Nov		8,619		185,658		0		0		0	681	26,863
03-Nov	1,752	10,371	38,544	224,202		0		0		0		26,863
04-Nov	608	10,979	13,376	237,578		0		0		0		26,863
05-Nov	596	11,575	13,112	250,690		0		0		0		26,863
06-Nov		11,575		250,690		0		0		0		26,863
07-Nov		11,575		250,690		0		0		0		26,863
08-Nov		11,575		250,690		0		0		0		26,863
09-Nov	651	12,226	14,322	265,012		0		0		0		26,863
10-Nov	124	12,350	2,728	267,740	1,810	1,810	11,400	11,400		0	617	27,481
11-Nov		12,350		267,740	7,510	9,320	47,310	58,710	304	304		27,481
12-Nov		12,350		267,740		9,320		58,710		304	584	28,064
13-Nov		12,350		267,740	1,357	10,677	8,550	67,260	3,986	4,290	91	28,155
14-Nov		12,350		267,740	3,619	14,296	22,800	90,060	4,167	8,457		28,155
15-Nov		12,350		267,740	181	14,477	1,140	91,200	2,170	10,627		28,155
16-Nov		12,350		267,740	3,619	18,096	22,800	114,000	2,653	13,280		28,155
17-Nov		12,350		267,740	4,705	22,801	29,640	143,640	904	14,184		28,155
18-Nov		12,350		267,740	1,719	24,520	10,830	154,470		14,184		28,155
19-Nov	2,132	14,482	43,054	310,794		24,520		154,470	3,406	17,591	515	28,670
20-Nov	840	15,322	18,480	329,274		24,520		154,470	3,575	21,166	364	29,034
21-Nov	420	15,742	9,240	338,514		24,520		154,470		21,166	243	29,277
22-Nov	840	16,582	18,480	356,994	2,624	27,144	16,530	171,000		21,166		29,549
23-Nov		16,582		356,994	6,786	33,930	42,750	213,750		21,166	272	29,822
24-Nov	1,680	18,262	36,960	393,954	4,705	38,635	29,640	243,390		21,166	273	30,095

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
25-Nov		18,262		393,954		38,635	19,380	262,770		21,166	273	30,095
26-Nov		18,262		393,954		38,635		262,770		21,166		30,095
27-Nov		18,262		393,954		38,635		262,770		21,166		30,095
28-Nov		18,262		393,954		38,635		262,770		21,166		30,095
29-Nov		18,262		393,954		38,635		262,770		21,166		30,095
30-Nov	1,680	19,942	36,960	430,914	2,714	41,349	17,100	279,870	2,237	23,403		30,095

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	2,456	278,756
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 13 January 1993

**SUBJECT:** December 1992 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of December 1992.

### UNIT 1

- Primary geotextile deployment on CELA completed on 4 December. Polyfelt TS1000 used in some areas instead of TS700. See table below and attachment for quantities.
- Gundseal and 60-mil thick VLDPE geomembrane deployed on CELA from 1 to 4 and 19 December. Deployment completed except for perimeter drainage channel. See table below and attachment for quantities.
- Geocomposite drainage layer deployed through 21 December. Deployment complete except for perimeter drainage channel. See table below and attachment for quantities.
- Common fill placement continued through 22 December working towards north end of CELA. See table below and attachment for quantities.
- Geo-Con abandoned attempts to dewater sand layer component of



perimeter channel on east side of CELA and thereby abandoned attempts to complete geosynthetics over the remainder of perimeter channel.

Item	December	Cumulative Quantity
Gas Vent Stone (tons)	0	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	5,400	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	502	96,898
CELA Geotextile (TS1000) (ft <sup>2</sup> )	82,500	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	7,667	9,359
VLDPE in Channel (ft <sup>2</sup> )	0	83,845
VLDPE in Channel (m <sup>2</sup> )	0	7,792
Gundseal in CELA (ft <sup>2</sup> )	105,425	524,132
Gundseal in CELA (m <sup>2</sup> )	9,798	48,711
VLDPE in CELA (ft <sup>2</sup> )	105,737	536,651
VLDPE in CELA (m <sup>2</sup> )	9,827	49,875
Geocomposite Layer (ft <sup>2</sup> )	238,260	518,130
Geocomposite Layer (m <sup>2</sup> )	22,143	48,153
Common Fill (tons)	22,300	45,703

- RMC Environmental Services continued to validate Law Environmental, Inc. test results for refinery area surface soils.
- Additional conformational sampling performed by GeoSyntec Consultants in refinery areas C (powerhouse), and D (Otis Eastern) on 21 and 22 December. Samples sent to Law

Environmental for analysis. Results indicate additional locations in both areas with arsenic concentrations above 25 ppm.

- ARCO and GeoSyntec Consultants attended meeting with EPA in New York City to discuss Operation and Maintenance Plan for CELA and the Refinery Surface Soils Cleanup Program.
- Discharge of water from holding ponds in SLA to POTW started on 5 December and continued throughout month. Maximum pumping rate permitted by POTW is 35 gpm.
- Discharge of CELA run-off water through combined channel and 42-in. diameter CMP culvert started on 16 December.
- Soil samples taken from west dike, on 8 December, for pH analysis as part of Partial River Channelization Project operation and maintenance annual inspection. Samples sent to Law Environmental, Inc., Pensacola, Florida, for analysis.
- GeoSyntec Consultants measured ground water elevation in piezometers P-1 to P-6 on 9 December.
- Monitoring wells MWR-1 to MWR-10 developed on 15, 16, 17 December. Monitoring well MWR-11 previously developed.
- Piezometers P-1 to P-5 developed on 17 and 18 December. Piezometer P-6 was not developed because it contains free product.
- Installed 25 temporary settlement monitoring points at proposed permanent settlement plate locations on 21 December. Elevations of temporary settlement monitoring points surveyed on 22 December.
- Installed temporary fence at south end of site.

- Geo-Con initiated winter shut down on 23 December.
- Monthly meeting held on 11 December.

## **UNIT 2, SEPARATOR**

- Sampled filtercake from 29 roll-off boxes and sludge covered sand and debris from 3 roll-off boxes on 10 December; total of 34 samples including duplicates. Samples sent to Law Environmental, Inc., Pensacola, Florida, for K051 analysis. Received preliminary K051 results from the 34 samples on 22 December, which indicated that 17 roll-off boxes contained material requiring incineration. Treatment of other roll-off boxes subject to final analytical results.
- 11 roll-off boxes containing filtercake transported on 28 and 30 December to LWD Inc., Culvert City, Kentucky, for incineration by Buffalo Fuel Corporation. See attached table for quantities.
- Filter plant treatment of filtrate continued throughout month. Treated filtrate discharged to POTW on 1, 4, 14, 23, and 29 December. See attached table for quantities.
- Steam cleaning of debris in Separator completed by 19 December.
- Sandblasting of Separator floor and walls completed on 29 December. Work performed in level B. Sand removed from Separator by vacuum truck and placed in roll-off boxes for off-site disposal.
- ARCO and GeoSyntec Consultants conducted a preliminary Separator walk through on 22 December.
- Concrete chip samples 2, 3, and 4 taken from Separator walls on 8, 14, and 29 December, respectively. Chip sample 4 collected

from wall of Separator immediately above chip sample 1 after area was re-sandblasted. Samples sent to General Testing Corporation, Rochester, New York, for total petroleum hydrocarbons (TPH) analysis. See table below for results.

SAMPLE NUMBER	SAMPLING DATE	RESULTS (TPH) ppm
1	24/Nov/92	19,400
2	8/Dec/92	51,400
3	14/Dec/92	30,500
3 Dup	14/Dec/92	21,300
4	29/Dec/92	12,600

#### UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

#### Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Sep		0		0		0		0		0		0		0		0
09-Sep		0		0		0		0	145	145	3,190	3,190	1,428	1,428		0
10-Sep		0		0		0		0	128	273	2,816	6,006		1,428		0
11-Sep		0		0		0		0		273		6,006		1,428		0
12-Sep		0		0		0		0	416	689	9,152	15,158		1,428		0
13-Sep		0		0		0		0		689		15,158		1,428		0
14-Sep		0		0		0		0	96	785	2,112	17,270		1,428		0
15-Sep		0		0		0		0	224	1,009	4,928	22,198	1,920	3,348		0
16-Sep		0		0		0		0		1,009		22,198		3,348		0
17-Sep		0		0		0		0	119	1,128	2,982	25,180	900	4,248		0
18-Sep		0		0		0		0	242	1,370	5,450	30,630	1,584	5,832		0
19-Sep		0		0		0		0		1,370		30,630		5,832		0
20-Sep		0		0		0		0		1,370		30,630		5,832		0
21-Sep		0		0		0		0		1,370		30,630		5,832		0
22-Sep		0		0		0		0		1,370		30,630		5,832		0
23-Sep		0		0		0		0		1,370		30,630		5,832		0
24-Sep		0		0		0		0		1,370		30,630		5,832		0
25-Sep	1,200	1,200	18,000	18,000		0		0		1,370		30,630		5,832		0
26-Sep		1,200		18,000		0		0		1,370		30,630		5,832		0
27-Sep		1,200		18,000		0		0		1,370		30,630		5,832		0
28-Sep	1,380	2,580	20,700	38,700		0		0		1,370		30,630		5,832		0
29-Sep	3,900	6,480		38,700		0		0	210	1,580	4,620	35,250		5,832		0
30-Sep		6,480	26,919	65,619		0		0		1,580		35,250		5,832		0
01-Oct	2,520	9,000	37,800	103,419		0		0		1,580		35,250		5,832		0
02-Oct	3,600	12,600	54,000	157,419		0		0		1,580		35,250		5,832		0
03-Oct	720	13,320	10,800	168,219		0		0	350	1,930	7,700	42,950	3,961	9,793		0
04-Oct		13,320		168,219		0		0		1,930		42,950		9,793		0
05-Oct	1,080	14,400	16,200	184,419		0		0		1,930		42,950		9,793		0
06-Oct	2,899	17,299	43,485	227,904		0		0		1,930		42,950		9,793		0
07-Oct	1,798	19,097	26,970	254,874		0		0		1,930		42,950		9,793		0

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
08-Oct		19,097		254,874		0		0	213	2,143	8,690	51,640	4,888	14,681		0
09-Oct		19,097		254,874		0		0		2,143		51,640		14,681		0
10-Oct	3,132	22,229	46,980	301,854		0		0		2,143		51,640		14,681		0
11-Oct		22,229		301,854		0		0		2,143		51,640		14,681		0
12-Oct	1,349	23,578	20,235	322,089		0		0		2,143		51,640		14,681		0
13-Oct		23,578		322,089		0		0		2,143		51,640		14,681		0
14-Oct	2,854	26,432	42,810	364,899		0		0		2,143		51,640		14,681		0
15-Oct		26,432		364,899		0		0	200	2,343	4,400	56,040	2,400	17,081		0
16-Oct	1,700	28,132	25,500	390,399		0		0		2,343		56,040		17,081		0
17-Oct	4,361	32,493	65,417	455,816		0		0		2,343		56,040		17,081		0
18-Oct		32,493		455,816		0		0		2,343		56,040		17,081		0
19-Oct	1,556	34,049	23,340	479,156		0		0		2,343		56,040		17,081		0
20-Oct	100	34,149	1,500	480,656		0		0		2,343		56,040		17,081	7,542	7,542
21-Oct		34,149		480,656		0		0		2,343		56,040		17,081		7,542
22-Oct		34,149		480,656		0		0		2,343		56,040		17,081	33,000	40,542
23-Oct		34,149		480,656		0		0		2,343		56,040		17,081	30,000	70,542
24-Oct	900	35,049	13,500	494,156		0		0		2,343		56,040		17,081	7,500	78,042
25-Oct		35,049		494,156		0		0		2,343		56,040		17,081		78,042
26-Oct	927	35,976	13,905	508,061		0		0		2,343		56,040		17,081	19,035	97,077
27-Oct	1,337	37,313	20,057	528,118		0		0	200	2,543	4,400	60,440	3,000	20,081	3,000	100,077
28-Oct	615	37,928	9,225	537,343		0		0		2,543		60,440		20,081	45,000	145,077
29-Oct	5,521	43,449	77,420	614,763		0		0	200	2,743	4,400	64,840	4,000	24,081		145,077
30-Oct	2,157	45,606	32,355	647,118		0		0	179	2,922	3,940	68,780	2,285	26,366	15,000	160,077
31-Oct	300	45,906	4,500	651,618		0		0	182	3,104	4,000	72,780	1,000	27,366	8,725	168,802
01-Nov		45,906		651,618		0		0	100	3,204	2,200	74,980		27,366		168,802
02-Nov		45,906		651,618		0		0		3,204		74,980		27,366		168,802
03-Nov		45,906		651,618		0		0		3,204		74,980		27,366	33,000	201,802
04-Nov	1,200	47,106	18,000	669,618		0		0		3,204		74,980		27,366	16,980	218,782
05-Nov	408	47,514	6,120	675,738		0		0		3,204		74,980		27,366	13,695	232,477
06-Nov	4,267	51,781	64,000	739,738		0		0		3,204		74,980		27,366		232,477

## MATERIALS SUMMARY TABLE

CENTRAL ELEVATED LANDFILL AREA (CELA)

SINCLAIR REFINERY SITE

WELLSVILLE, NEW YORK

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
07-Nov	1,650	53,431	24,750	764,488		0		0	3,204		74,980		27,366		232,477	
08-Nov		53,431		764,488		0		0	3,204		74,980	10,500	37,866		232,477	
09-Nov		53,431		764,488		0		0	3,204		74,980		37,866	25,740	258,217	
10-Nov		53,431		764,488		0		0	3,204		74,980		37,866	1,500	259,717	
11-Nov	1,012	54,443	15,180	779,668		0		0	3,204		74,980		37,866		259,717	
12-Nov		54,443		779,668		0		0	3,204		74,980		37,866		259,717	
13-Nov		54,443		779,668		0		0	3,204		74,980		37,866		259,717	
14-Nov		54,443		779,668		0		0	3,204		74,980	2,200	40,066		259,717	
15-Nov	6,660	61,103	99,900	879,568		0		0	3,204		74,980		40,066		259,717	
16-Nov		61,103		879,568		0		0	3,204		74,980		40,066		259,717	
17-Nov	2,200	63,303	33,000	912,568		0		0	3,204		74,980		40,066		259,717	
18-Nov	307	63,610	3,600	916,168		0		0	3,204		74,980		40,066	900	260,617	
19-Nov		63,610		916,168		0		0	178	3,382	3,805	78,785	40,066	41,090	301,707	
20-Nov	720	64,330	10,800	926,968	200	200	3,000	3,000	230	3,612	5,060	83,845	500	40,566	15,000	316,707
21-Nov	7,350	71,680	110,250	1,037,218	1,013	1,213	15,200	18,200		3,612		83,845		40,566	9,000	325,707
22-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566	18,000	343,707
23-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		343,707
24-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566	36,000	379,707
25-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		379,707
26-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		379,707
27-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		379,707
28-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		379,707
29-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566		379,707
30-Nov		71,680		1,037,218		1,213		18,200		3,612		83,845		40,566	39,000	418,707
01-Dec	360	72,040	5,400	1,042,618	1,800	3,013	27,000	45,200		3,612		83,845		40,566	18,600	437,307
02-Dec		72,040		1,042,618	1,400	4,413	21,000	66,200		3,612		83,845		40,566	24,800	462,107
03-Dec		72,040		1,042,618	500	4,913	7,500	73,700		3,612		83,845		40,566	12,400	474,507
04-Dec		72,040		1,042,618	1800	6,713	27,000	100,700		3,612		83,845		40,566	48,000	522,507
05-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
06-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507

**MATERIALS SUMMARY TABLE**

**CENTRAL ELEVATED LANDFILL AREA (CELA)**

**SINCLAIR REFINERY SITE**

**WELLSVILLE, NEW YORK**

DATE	GEOTEXTILE TS700				GEOTEXTILE TS1000				CHANNEL VLDPE				CHANNEL GUNSEAL		CELA GUNSEAL	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(sq. ft)		(sq. ft)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
07-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
08-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
09-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
10-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
11-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
12-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
13-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
14-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
15-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
16-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
17-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
18-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		522,507
19-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566	1,625	524,132
20-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
21-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
22-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
23-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
24-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
25-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
26-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
27-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
28-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
29-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
30-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132
31-Dec		72,040		1,042,618		6,713		100,700		3,612		83,845		40,566		524,132



MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
05-Aug		0		0		0		0		0		0
06-Aug		0		0		0		0		0	670	670
07-Aug		0		0		0		0		0	971	1,641
08-Aug		0		0		0		0		0		1,641
09-Aug		0		0		0		0		0		1,641
10-Aug		0		0		0		0		0	628	2,269
11-Aug		0		0		0		0		0	441	2,710
12-Aug		0		0		0		0		0	152	2,862
13-Aug		0		0		0		0		0		2,862
14-Aug		0		0		0		0		0		2,862
15-Aug		0		0		0		0		0		2,862
16-Aug		0		0		0		0		0		2,862
17-Aug		0		0		0		0		0		2,862
18-Aug		0		0		0		0		0	703	3,564
19-Aug		0		0		0		0		0	524	4,088
20-Aug		0		0		0		0		0	369	4,458
21-Aug		0		0		0		0		0	556	5,013
22-Aug		0		0		0		0		0		5,013
23-Aug		0		0		0		0		0		5,013
24-Aug		0		0		0		0		0	402	5,415
25-Aug		0		0		0		0		0		5,415
26-Aug		0		0		0		0		0		5,415
27-Aug		0		0		0		0		0		5,415
28-Aug		0		0		0		0		0		5,415
29-Aug		0		0		0		0		0		5,415
30-Aug		0		0		0		0		0		5,415
31-Aug		0		0		0		0		0		5,415
01-Sep		0		0		0		0		0		5,415
02-Sep		0		0		0		0		0		5,415
03-Sep		0		0		0		0		0		5,415

**MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK**

[illegible]

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
04-Oct		0		0		0		0		0		8,178
05-Oct		0		0		0		0		0	784	8,962
06-Oct		0		0		0		0		0	809	9,771
07-Oct		0		0		0		0		0	871	10,642
08-Oct		0		0		0		0		0	607	11,249
09-Oct		0		0		0		0		0	1,154	12,403
10-Oct		0		0		0		0		0	928	13,331
11-Oct		0		0		0		0		0		13,331
12-Oct		0		0		0		0		0	1,197	14,527
13-Oct		0		0		0		0		0	1,434	15,961
14-Oct		0		0		0		0		0	911	16,872
15-Oct		0		0		0		0		0	934	17,805
16-Oct		0		0		0		0		0	1,328	19,133
17-Oct		0		0		0		0		0	738	19,871
18-Oct		0		0		0		0		0		19,871
19-Oct		0		0		0		0		0	2,025	21,896
20-Oct	431	431	9,482	9,482		0		0		0	1,621	23,516
21-Oct		431		9,482		0		0		0	1,546	25,062
22-Oct	1,680	2,111	36,960	46,442		0		0		0		25,062
23-Oct	1,396	3,507	30,712	77,154		0		0		0		25,062
24-Oct	300	3,807	7,040	84,194		0		0		0		25,062
25-Oct		3,807		84,194		0		0		0		25,062
26-Oct	1,097	4,904	24,134	108,328		0		0		0		25,062
27-Oct	200	5,104		108,328		0		0		0		25,062
28-Oct	2,089	7,193	45,958	154,286		0		0		0		25,062
29-Oct	374	7,567	8,228	162,514		0		0		0		25,062
30-Oct	494	8,061	10,868	173,382		0		0		0	544	25,606
31-Oct	558	8,619	12,276	185,658		0		0		0	577	26,183
01-Nov		8,619		185,658		0		0		0		26,183
02-Nov		8,619		185,658		0		0		0	681	26,863

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
03-Nov	1,752	10,371	38,544	224,202		0		0		0		26,863
04-Nov	608	10,979	13,376	237,578		0		0		0		26,863
05-Nov	596	11,575	13,112	250,690		0		0		0		26,863
06-Nov		11,575		250,690		0		0		0		26,863
07-Nov		11,575		250,690		0		0		0		26,863
08-Nov		11,575		250,690		0		0		0		26,863
09-Nov	651	12,226	14,322	265,012		0		0		0		26,863
10-Nov	124	12,350	2,728	267,740	1,810	1,810	11,400	11,400		0	617	27,481
11-Nov		12,350		267,740	7,510	9,320	47,310	58,710	304	304		27,481
12-Nov		12,350		267,740		9,320		58,710		304	584	28,064
13-Nov		12,350		267,740	1,357	10,677	8,550	67,260	3,986	4,290	91	28,155
14-Nov		12,350		267,740	3,619	14,296	22,800	90,060	4,167	8,457		28,155
15-Nov		12,350		267,740	181	14,477	1,140	91,200	2,170	10,627		28,155
16-Nov		12,350		267,740	3,619	18,096	22,800	114,000	2,653	13,280		28,155
17-Nov		12,350		267,740	4,705	22,801	29,640	143,640	904	14,184		28,155
18-Nov		12,350		267,740	1,719	24,520	10,830	154,470		14,184		28,155
19-Nov	2,132	14,482	43,054	310,794		24,520		154,470	3,406	17,591	515	28,670
20-Nov	840	15,322	18,480	329,274		24,520		154,470	3,575	21,166	364	29,034
21-Nov	420	15,742	9,240	338,514		24,520		154,470		21,166	243	29,277
22-Nov	840	16,582	18,480	356,994	2,624	27,144	16,530	171,000		21,166		29,549
23-Nov		16,582		356,994	6,786	33,930	42,750	213,750		21,166	272	29,822
24-Nov	1,680	18,262	36,960	393,954	4,705	38,635	29,640	243,390		21,166	273	30,095
25-Nov		18,262		393,954		38,635	19,380	262,770		21,166	273	30,095
26-Nov		18,262		393,954		38,635		262,770		21,166		30,095
27-Nov		18,262		393,954		38,635		262,770		21,166		30,095
28-Nov		18,262		393,954		38,635		262,770		21,166		30,095
29-Nov		18,262		393,954		38,635		262,770		21,166		30,095
30-Nov	1,680	19,942	36,960	430,914	2,714	41,349	17,100	279,870	2,237	23,403		30,095
01-Dec	678	20,620	14,916	445,830	4,886	46,235	30,780	310,650	3,505	26,908		30,095
02-Dec	1,136	21,756	25,000	470,830	5,713	51,948	36,480	347,130	2,821	29,728		30,095

MATERIALS SUMMARY TABLE  
CENTRAL ELEVATED LANDFILL AREA (CELA)  
SINCLAIR REFINERY SITE  
WELLSVILLE, NEW YORK

DATE	CELA VLDPE				CELA GEOCOMPOSITE				COMMON FILL		GAS VENT STON	
	(Linear ft)		(sq. ft)		(Linear ft)		(sq. ft)		(Tons)		(Tons)	
	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total	Day	Total
03-Dec	606	22,362	13,332	484,162	2,352	54,300	14,820	361,950	2,360	32,088		30,095
04-Dec	2,323	24,685	51,114	535,276	1,629	55,929	10,260	372,210	3,381	35,469		30,095
05-Dec		24,685		535,276		55,929		372,210		35,469		30,095
06-Dec		24,685		535,276		55,929		372,210		35,469		30,095
07-Dec		24,685		535,276		55,929		372,210	2,796	38,265		30,095
08-Dec		24,685		535,276	1,357	57,286	8,550	380,760	3,023	41,288		30,095
09-Dec		24,685		535,276	4,795	62,081	30,210	410,970	1,888	43,176		30,095
10-Dec		24,685		535,276	1,267	63,348	7,980	418,950		43,176		30,095
11-Dec		24,685		535,276		63,348		418,950		43,176		30,095
12-Dec		24,685		535,276		63,348		418,950		43,176		30,095
13-Dec		24,685		535,276		63,348		418,950		43,176		30,095
14-Dec		24,685		535,276	1,086	64,434	6,840	425,790		43,176		30,095
15-Dec		24,685		535,276	2,352	66,786	14,820	440,610		43,176		30,095
16-Dec		24,685		535,276	3,890	70,676	24,510	465,120		43,176		30,095
17-Dec		24,685		535,276	3,710	74,386	23,370	488,490		43,176		30,095
18-Dec		24,685		535,276	4,252	78,638	26,790	515,280		43,176		30,095
19-Dec	63	24,748	1,375	536,651		78,638		515,280		43,176		30,095
20-Dec		24,748		536,651		78,638		515,280		43,176		30,095
21-Dec		24,748		536,651	452	79,090	2,850	518,130	1,112	44,288		30,095
22-Dec		24,748		536,651		79,090		518,130	1,415	45,703		30,095
23-Dec		24,748		536,651		79,090		518,130		45,703		30,095
24-Dec		24,748		536,651		79,090		518,130		45,703		30,095
25-Dec		24,748		536,651		79,090		518,130		45,703		30,095
26-Dec		24,748		536,651		79,090		518,130		45,703		30,095
27-Dec		24,748		536,651		79,090		518,130		45,703		30,095
28-Dec		24,748		536,651		79,090		518,130		45,703		30,095
29-Dec		24,748		536,651		79,090		518,130		45,703		30,095
30-Dec		24,748		536,651		79,090		518,130		45,703		30,095
31-Dec		24,748		536,651		79,090		518,130		45,703		30,095

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0
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SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

GQ3201/SEP.WK1

## UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	163	163
Volume filtrate produced (gal.)	0	233,841	0	233,841
Volume filtrate treated (gal.)	0	163,103	16,897	180,000
Volume filtrate to POTW (gal.)	25,451	112,201	25,451	112,201
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623



## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

**DATE:** 10 February 1993

**SUBJECT:** January 1993 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

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The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of January 1993.

### UNIT 1

- Water pumped from temporary holding ponds in SLA to sanitary sewer, which leads directly to POTW, through 6 January. Remaining water frozen and will be left until Geo•Con remobilizes.
- ARCO and GeoSyntec Consultants conducted a preliminary CELA walk through on 7 January, and discussed punch list items with Geo•Con on 8 January.
- EPA/DEC walk through of CELA and Separator conducted on 20 January. M. Negrelli and L. DiGuardia (EPA), J. Drumm (NYDEC), M. Hrywnak (COE), R. Ivy (ARCO), B. Powers and C. Bailey (Geo•Con), and R. North and J. Brandes (GeoSyntec Consultants) in attendance.
- GeoSyntec Consultants collected CELA run-off water samples from 42-in. CMP culvert at north end of CELA on 13 January. Samples sent to Law Environmental, Inc., Kennesaw, Georgia, for analysis.
- Four geocomposite samples cut from exposed deployed geocomposite on 13 January. The geotextile component was tested by GeoSyntec Consultants' Materials Testing Laboratory, Boca Raton, Florida. Geo•Con is required to take adjacent samples when work resumes to determine whether the geotextile has degraded due to exposure.
- Additional surface soil conformational sampling performed by

GeoSyntec Consultants in refinery areas A (Current Controls), C (powerhouse), and D (Otis Eastern) on 18 and 19 January. Samples sent to Law Environmental for analysis. Results indicate additional locations in area C with arsenic concentrations above 25 ppm. Results also defined excavation limits required in area D.

- Buffalo Crushed Stone, Inc. delivered one truckload of proposed riprap to site from its Wherle Road, Buffalo, quarry on 11 January. GeoSyntec Consultants visited this quarry on 15 January. Importing and stock-piling of riprap started on 25 January and continued throughout month.
- Monitoring wells and piezometers sampled on 20, 21, and 22 January. Piezometer P-6 could not be accessed due to a temporary protective drum over the riser casing. Water samples taken from monitoring wells MWR-1 to MWR-11 and piezometers P-3 and P-5. Samples sent to Alfred Technical & Analytical Laboratory, Alfred, New York, for analysis. Other parameters measured on-site as part of activities.

## UNIT 2. SEPARATOR

- Sampled sand and residuals from two roll-off boxes on 4 January. Samples sent to Law Environmental, Inc., Pensacola, Florida, for K051 analysis. Received preliminary K051 results on 26 January, which indicated that material may be suitable for landfill disposal.
- Eleven roll-off boxes containing filtercake transported on 4, 5, 8, and 14 January by Buffalo Fuel Corporation to LWD Inc., Culvert City, Kentucky, for incineration. See attached table for quantities.
- Filter plant treatment of filtrate and extraneous water continued throughout month. Treated water discharged to POTW on 11, 14, 22, 28, and 29 January. See attached table for quantities.
- Concrete chip sample 5 taken on 5 January from Separator wall immediately to side of chip sample 2 after area was re-sandblasted. Sample sent to General Testing Corporation, Rochester, New York, for total petroleum hydrocarbons (TPH)

analysis. Analytical result received on 7 January. See table below for results.

SAMPLE NUMBER	SAMPLING DATE	RESULTS (TPH) ppm
1	24/Nov/92	19,400
2	8/Dec/92	51,400
3	14/Dec/92	30,500
3 Dup	14/Dec/92	21,300
4	29/Dec/92	12,600
5	5/Jan/93	6,860

- Installed 15-in. diameter CMP from ditch on south side of Current Controls building to manhole 3 of Separator bypass line on 6 January.
- Temporary roof over Separator dismantled; pipes, valves, and pumps removed; pumphouse and pumphouse foundation demolished; holes made in floor of Separator; and Separator walls demolished 2 feet below grade between 11 and 15 January.
- Pumphouse and Separator backfilled with gravel between 13 and 20 January.
- Cover installed over 100,000 gal. Modutank on 15 January and heaters installed to melt ice. Aqueous material pumped to west 30,000 gal. Modutank. Treatment and discharge of treated water discussed in next paragraph. Sludge removed from bottom of 100,000 gal. Modutank with vacuum truck, stabilized with lime, and placed in two roll-off boxes; completed on 29 January. Final decontamination and dismantling of 100,000 gal. Modutank completed on 5 February.
- Treatment of aqueous material in west 30,000 gal. Modutank started on 27 January. Tank covered and heater placed inside tank to melt ice on 28 January. Treated water discharged through manhole 4 of Separator by-pass system into Genesee River, instead of to POTW. Treatment and discharge into manhole 4 continued for approximately 20 hours until GeoSyntec Consultants alerted

Sevenson to the error on 28 January. Sevenson estimated that approximately 4,250 gals. of untested water was discharged into Genesee River. Sevenson corrected discharge error immediately and took a water sample for analysis to compare treated water with Genesee River discharge requirements. Treatment and discharge to POTW continued on 28 and 29 January. See attached table for quantities.

- East 30,000 gal. Modutank decontaminated and dismantled between 25 January and 1 February.
- Twenty-nine 55-gal. drums containing oil, skimmed from top of east 100,000 gal. Modutank, transported by Hazmat Trucking on 29 January to LWD Inc., Culvert City, Kentucky, for incineration.
- Removed fence from west half of site and re-established the two-lane road to SUNY on 22 January. Temporary fence set around new manholes 1, 2, 3 and 4 and existing catch-basin NCB-2.

## UNIT 2, POWERHOUSE

- No activity.

\* \* \* \* \*

## Attachment

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 4 OCTOBER WEEK	TOTAL	W/E 11 OCTOBER WEEK	TOTAL	W/E 18 OCTOBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	49,500	49,500	0	49,500	32,500	82,000
Volume aqueous phase treated (gal.)	0	0	20,000	20,000	16,400	36,400
Volume of aqueous phase to POTW (gal.)	0	0	0	0	0	0
Volume sludge treated (gal.)	0	0	29,472	29,472	31,928	61,400
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	0	0	Unknown	Unknown	Unknown	Unknown
Volume filtrate treated (gal.)	0	0	0	0	0	0
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	0	0	0	0	0
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

ITEM	W/E 25 OCTOBER WEEK	TOTAL	W/E 1 NOVEMBER WEEK	TOTAL	W/E 8 NOVEMBER WEEK	TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	13,210	49,610	26,954	76,564	5,436	82,000
Volume of aqueous phase to POTW (gal.)	0	0	23,362	23,362	26,248	49,610
Volume sludge treated (gal.)	51,576	112,976	34,384	147,360	49,120	196,480
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	Unknown	Unknown	88,610 by 29 Oct	Unknown	140,999 by 6 Nov
Volume filtrate treated (gal.)	0	0	0	0	8,276	8,276
Volume filtrate to POTW (gal.)	0	0	0	0	0	0
Volume extraneous water present (gal.)	0	0	12,623	12,623	0	0
Volume extraneous water treated (gal.)	0	0	0	0	12,623	12,623
Volume extraneous water to POTW (gal.)	0	0	0	0	0	0

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 15 WEEK	NOVEMBER TOTAL	W/E 22 WEEK	NOVEMBER TOTAL	W/E 29 WEEK	NOVEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	32,390	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	41,752	238,232	38,068	276,300	5,912	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	Unknown	193,875	14,971	208,846	14,971	223,817
		by 15 Nov				
Volume filtrate treated (gal.)	25,451	33,727	19,795	53,522	5,656	59,178
Volume filtrate to POTW (gal.)	8,276	8,276	0	8,276	0	8,276
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	12,623	12,623	0	12,623	0	12,623

ITEM	W/E 6 WEEK	DECEMBER TOTAL	W/E 13 WEEK	DECEMBER TOTAL	W/E 20 WEEK	DECEMBER TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	0	0	0	0
Volume filtrate produced (gal.)	2,579	226,396	7,445	233,841	0	233,841
Volume filtrate treated (gal.)	53,023	112,201	0	112,201	50,902	163,103
Volume filtrate to POTW (gal.)	50,902	59,178	0	59,178	53,023	112,201
Volume extraneous water present (gal.)	0	0	0	0	0	0
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

SINCLAIR REFINERY, WELLSVILLE, NEW YORK

UNIT 2, SEPARATOR REMEDIATION

ITEM	W/E 27 WEEK	DECEMBER TOTAL	W/E 3 WEEK	JANUARY TOTAL	W/E 10 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	0	0	163	163	128	291
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	0	163,103	16,897	180,000	34,005	214,005
Volume filtrate to POTW (gal.)	25,451	137,652	25,451	163,103	0	163,103
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	unknown
Volume extraneous water treated (gal.)	0	12,623	0	12,623	0	12,623
Volume extraneous water to POTW (gal.)	0	12,623	0	12,623	0	12,623

ITEM	W/E 17 WEEK	JANUARY TOTAL	W/E 24 WEEK	JANUARY TOTAL	W/E 31 WEEK	JANUARY TOTAL
Volume aqueous phase removed (gal.)	0	82,000	0	82,000	0	82,000
Volume aqueous phase treated (gal.)	0	82,000	0	82,000	0	82,000
Volume of aqueous phase to POTW (gal.)	0	82,000	0	82,000	0	82,000
Volume sludge treated (gal.)	0	282,212	0	282,212	0	282,212
Weight filter-cake off-site (tons)	31	322	0	322	0	322
Volume filtrate produced (gal.)	0	233,841	0	233,841	0	233,841
Volume filtrate treated (gal.)	19,836	233,841	0	233,841	0	233,841
Volume filtrate to POTW (gal.)	50,902	214,005	19,836	233,841	0	233,841
Volume extraneous water present (gal.)	unknown	unknown	unknown	unknown	unknown	27,076
Volume extraneous water treated (gal.)	5,615	18,238	0	18,238	8,838	27,076
Volume extraneous water to POTW (gal.)	0	12,623	5,615	18,238	4,596	22,834
Volume extraneous water to river (gal.)	0	0	0	0	4,242	4,242

## MONTHLY FIELD REPORT

TO: Mr. Robert E. Ivy, ARCO

FROM: Roger B. North, P.E., GeoSyntec Consultants *RBN*  
Jonathan E. Brandes, GeoSyntec Consultants *JEB*

DATE: 4 March 1993

SUBJECT: February 1993 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of February 1993.

### UNIT 1

- Additional surface soil conformational sampling performed by GeoSyntec Consultants in refinery areas A (Current Controls) and C (powerhouse) on 4 and 5 February and in area C on 11 February. Samples sent to Law Environmental for analysis. Results indicate additional locations in areas A and C with arsenic concentrations above 25 ppm.
- Rip-rap imported from Buffalo Crushed Stone, Inc., Wherle Road quarry, Buffalo, through 17 February. Material stock-piled in staging area. Total of 4,960 tons imported to date.
- C. Bailey on-site on 12 February to determine unit weight of rip-rap delivered to site.
- Front-end loader demobilized on 19 February.

### UNIT 2, SEPARATOR

- Sampled residual sludge (from bottom of ModuTanks) from two roll-off boxes on 4 February. Samples sent to Law Environmental, Inc., Pensacola, Florida, for KO51 analysis.
- Sampled material from fourteen roll-off boxes (ten containing filtercake, two containing sandblasting residuals and two containing residual sludge from bottom of ModuTanks) on 11 February. Samples sent to General Testing Corporation, Rochester, New York, for consecutive KO51 and TCLP analysis.



February 1993 Monthly Field Report

4 March 1993

Page 2

- Decontamination and dismantling of 100,000 gal. Modutank completed on 3 February.
- Decontamination and dismantling of east 30,000 gal. Modutank completed on 1 February.
- Residual sludge residuals removed from bottom of west 30,000 gal. Modutank on 1 and 2 February.
- West 30,000 gal. Modutank decontaminated and dismantled on 3 and 4 February.
- Decontamination pad and associated materials decontaminated and removed on 5 February.
- Completed removal of perimeter fencing on 9 February.
- Ten protective bollards concreted around new manholes 1 and 2 and existing catch basin NCB-2, at west end Separator, on 15 and 16 February. Each bollard set approximately 4 ft (1.2 m) in ground and 4 ft (1.2 m) above ground.
- Severson completed demobilization from site on 16 February except for contractor trailer and International utility loader. Severson demobilized contractor trailer on 25 February.

**UNIT 2, POWERHOUSE**

- Geo-Con removed spoil heap from base of stack on 10 February to uncover small opening at bottom of stack.
- Bakers of Jerrico Hill excavated material from opening at bottom of stack on 26 February.

\* \* \* \* \*

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
Dr. J. F. Beech, P.E., GeoSyntec Consultants

## MONTHLY FIELD REPORT

**TO:** Mr. Robert E. Ivy, ARCO

**FROM:** Roger B. North, P.E., GeoSyntec Consultants  
Jonathan E. Brandes, GeoSyntec Consultants *TER*

**DATE:** 4 June 1993

**SUBJECT:** May 1993 Monthly Field Report  
Sinclair Refinery Site Remediation  
Wellsville, New York

---

The following main activities took place at the Sinclair Refinery Site, Wellsville, New York, during the month of May 1993:

### UNIT 1

- Spring remobilization kick-off meeting for Unit 1 held on site on 11 May.
- GeoSyntec Consultants continued to collect and test additional refinery area confirmational soil samples in Refinery Areas B (end of swale), C (powerhouse), and G (dike area). Samples collected on 4, 6, 17, 18, 25, 26 May and sent to Law Environmental Inc., (Law), Pensacola, Florida, for Analysis.
- RMC Environmental Services continued to validate Law's test results for refinery area surface soils.

May 1993 Monthly Field Report

4 June 1993

Page 2

- GeoSyntec Consultants and On-Site Health and Safety Services, Inc. performed second round of operation and maintenance sampling activities associated with CELA monitoring wells and piezometers on 5, 6 and 7 May. Water samples taken from monitoring wells MWR-1 to MWR-11 and piezometers P-3 and P-5. Samples sent to Alfred Technical & Analytical Laboratory, Alfred, New York, for analysis. Other parameters measured on-site as part of activities.
- Received results on 11 May of the tests performed by GeoSyntec Consultants' Materials Testing Laboratory on the geotextile component of the four geocomposite samples which were obtained on 29 April 1993 from locations immediately adjacent to the locations of the four samples collected on 13 January 1993. The results from the April and January samples were compared; the data indicates that no significant degradation of the geotextile occurred due to exposure between 13 January and 29 April.
- Primary Gundseal and 60-mil thick VLDPE geomembrane deployed on CELA on 14, 19, and 24-26 May. This completes the installation of Gundseal and VLDPE. See table below for quantities.
- Geocomposite drainage layer deployed on 21 and 27 May. This completes the installation of geocomposite. See table below for quantities.
- Common fill imported for anchor trench backfill, repair of west dike, placement on CELA, and perimeter grading between 18 and 28 May. See table below for quantities.
- Geo-Con dewatered sand layer component of perimeter channel on east, south and north side of CELA between 13 and 28 May.

May 1993 Monthly Field Report

4 June 1993

Page 3

- Discharge of water from temporary holding ponds in SLA to POTW continued until completed on 7 May. Geo•Con cleaned and removed the ponds liners and backfilled and graded the SLA between 29 April and 20 May.
- Geo•Con excavated common fill from along the alignments of the rock chutes and swales on CELA cap between 21 and 26 May.
- Geo•Con started excavating common fill from the alignments of the anchor trenches for geotextile TS1000 along sides of the rock chutes and swales on 26 May and continued throughout month.
- Geo•Con Deployed TS1000 in rock chutes and swales on CELA cap on 27 and 28 May. See table below for quantities.
- Bedding stone was imported, stockpiled in SLA and placed in rock chutes and swales on 27 and 28 May. See table below for quantities.
- Wood chip stockpile at northwest end of CELA was loaded on trucks and dumped at various locations on CELA on 26 May. Wood chips will be mixed with topsoil and spread on CELA.

Item	May	Cumulative Quantity
Gas Vent Stone (tons)	0 (Completed)	30,095
CELA Geotextile (TS700) (ft <sup>2</sup> )	0 (Completed)	1,042,618
CELA Geotextile (TS700) (m <sup>2</sup> )	0 (Completed)	96,898

May 1993 Monthly Field Report

4 June 1993

Page 4

Item	May	Cumulative Quantity
CELA Geotextile (TS1000) (ft <sup>2</sup> )	0 (Completed)	100,700
CELA Geotextile (TS1000) (m <sup>2</sup> )	0 (Completed)	9,359
Channel Geotextile (TS1000) (ft <sup>2</sup> )	15,000	15,000
Channel Geotextile (TS1000) (m <sup>2</sup> )	1,394	1,394
Secondary VLDPE (ft <sup>2</sup> )	0 (Completed)	83,845
Secondary VLDPE (m <sup>2</sup> )	0 (Completed)	7,792
Secondary Gundseal (ft <sup>2</sup> )	0 (Completed)	39,566
Secondary Gundseal (m <sup>2</sup> )	0 (Completed)	3,677
Primary Gundseal (ft <sup>2</sup> )	39,000 (Completed)	563,132
Primary Gundseal (m <sup>2</sup> )	3,625 (Completed)	52,336
Primary VLDPE (ft <sup>2</sup> )	40,118 (Completed)	576,769
Primary VLDPE (m <sup>2</sup> )	3,728 (Completed)	53,603
Geocomposite Layer (ft <sup>2</sup> )	16,600 (Completed)	534,730
Geocomposite Layer (m <sup>2</sup> )	1,543 (Completed)	49,696
Bedding Stone (tons)	541	541
Common Fill (tons)	2,322	48,025

GQ3201/WE0089

May 1993 Monthly Field Report  
4 June 1993  
Page 5

## **UNIT 2, SEPARATOR**

- Lynch Paving and Contracting Inc., as a subcontractor to Severson, graded, compacted and paved separator footprint between 20 May and 1 June.

## **UNIT 2, POWERHOUSE**

- GeoSyntec Consultants continued preparation of Powerhouse Remediation Work Plan.

\* \* \* \* \*

## **Attachment**

Copy to: D. A. Christensen, P.E., ARCO  
D. E. Grooms, ARCO  
J. K. Kimura, ARCO  
M. Hrywnak, COE  
L. B. Macdonald, Morrison Knudsen Corporation  
Dr. J. F. Beech, P.E., GeoSyntec Consultants



**FORM A-1**

**WORK AREA SECURITY**



# WORK AREA SECURITY

FORM A-1

SHEET 1 OF 1

INSPECTION DATE 9.3.92  
9.10.92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- TEMPORARY FENCING ENCLOSURES  
OPERATION AND STAGING  
AREAS

✓

—

—

- FENCING ADEQUATE TO PROTECT  
SITE EQUIPMENT AND PREVENT  
TRESPASSING

✓

—

—

- ACCESS/EGRESS CONTROL

✓

—

—

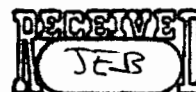
## 2. DUST CONTROL N/A

✓

ACTION TAKEN WORK PRESENTLY DOESN'T REQUIRE DUST  
CONTROL

3. REMARKS 9.3.92 ON-SITE H&S INITIATED 24 HR SECURITY  
4' HIGH PERIMETER FENCE WAS INSPECTED - AREA  
EAST OF SITE REQUIRES COMPLETION  
9-10-92 - AREA EAST OF SITE CHECKED FOR FENCE -  
FENCE PROPERLY INSTALLED

SEP 16 1992



INSPECTOR Kim W. Luffield SES QCA  
REVIEWED BY Jonathan Brandy

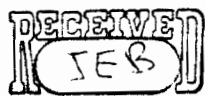
DATE 9.3.92  
DATE 9/16/92



**FORM A-2**

**MOBILIZATION**

SEP 16 1992



FORM A-2  
SHEET 1 OF 1  
INSPECTION DATE 9-10-92

MOBILIZATION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- EQUIPMENT AND TEMPORARY FACILITIES REQUIRED FOR REMEDIATION MOBILIZED TO SITE

✓ — —

- UTILITIES HOOKED UP IN ACCORDANCE WITH INDUSTRY PRACTICE

✓ — —

- COMMAND POST, SUPPORT AREA, CRZ AND EXCLUSION ZONE CONFORM WITH CONTRACT DOCUMENTS

— — —

- UTILITY CLEARANCE WITHIN THE VICINITY OF THE SEPARATOR

✓ — —

2. DUST CONTROL

ACTION TAKEN

\_\_\_\_\_

3. REMARKS CRZ/EZ NOT ESTABLISHED AS OF 9-10-93  
WILL BE RE-INSPECTED

- UTILITY COS - NOTIFIED & CAME TO SITE - GAS & WATER ONLY UNDERGROUND UTILITIES IN VICINITY OF THE SEPARATOR.

- ELECTRICIAN CONNECTED POWER TO TRAILERS

- TWO OFFICE TRAILERS & 1 SHOWER TRAILER ON-SITE  
SANITARY TANKS CONNECTED TO SAME.  
WATER SERVICE IS FROM EXISTING HYDRANT, SOUTH OF THE SITE.

INSPECTOR Kim W. Self SES QCM  
REVIEWED BY Matthew Brinkley

DATE 9-10-92  
DATE 9/16/92



**FORM A-3**

**CLEAR AND GRUB/STRIP TOPSOIL**

CLEAR AND GRUBB/STRIP TOPSOIL

FORM A-3  
SHEET 1 OF 1  
INSPECTION DATE 9-10-92

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SIZE OF AREA TO BE CLEARED IS APPROPRIATE CONSIDERING SITE ACTIVITIES
- AREA IS FREE OF TREES, BRUSH, LOGS, LIMB WOOD, RUBBISH AND OTHER OBSTRUCTIONS
- STRIPPED TOPSOIL STAGED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- EROSION CONTROL SYSTEM CONSTRUCTED

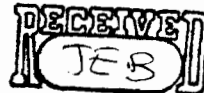
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. DUST CONTROL

ACTION TAKEN \_\_\_\_\_

3. REMARKS - ARRANGEMENTS MADE W/ VILLAGE TO UTILIZE AREA EAST OF SITE - THIS AREA WAS CLEARED & GRUBBED - THE SITE PROPER WAS GRUBBED OF STUMPS & MISC DEBRIS. DEBRIS TO BE LANDFILLED PER ARCO REQUEST.
- MINIMAL TOPSOIL WAS ENCOUNTERED. NO TOPSOIL WAS STRIPPED. NO EROSION CONTROL REQUIRED BECAUSE NO STOCKPILES WERE ESTABLISHED

SEP 16 1992



INSPECTOR Kim W. Self SES QCM  
REVIEWED BY Jonathan Brankes

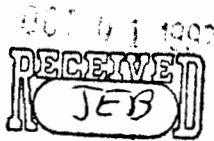
DATE 9-10-92  
DATE 9/16/92





**FORM A-5**

**INSTALL SEPARATOR BY-PASS SEWER**



FORM A-5  
SHEET 1 OF 1  
INSPECTION DATE 10-1-92

INSTALL SEPARATOR BYPASS

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- |  |                   |   |   |   |
|--|-------------------|---|---|---|
| - PERMANENT BYPASS INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS                     | INITIATED 9/30/92 | — | — | — |
| - EXCAVATIONS CONDUCTED ACCORDING TO OSHA STANDARD 29 PART 1916                        | ✓ 10-1-92         | — | — | — |
| - INVERT ELEVATIONS OF BYPASS ALLOW FLOW THROUGH BYPASS                                | ✓ 10-1-92         | — | — | — |
| - DURING INSTALLATION, FLOW FROM INLET TO OUTLET IS TEMPORARILY RE-ROUTED              | ✓ 10-1-92         | — | — | — |
| - INLET AND OUTLET PIPE OPENINGS WITHIN SEPARATOR WALLS AND FLOORS PERMANENTLY PLUGGED | ✓ 10-1-92         | — | — | — |
| - PIPE LEAK TEST PERFORMED ACCORDING TO CONTRACT DOCUMENTS                             |                   | — | — | — |

2. DUST CONTROL

ACTION TAKEN WATER TRUCK BEING UTILIZED DURING EXCAVATION HAULING.

3. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 10-1-92  
DATE 10/2/92



FORM A-5  
SHEET 1 OF 1  
INSPECTION DATE 10.16.92

INSTALL SEPARATOR BYPASS

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- PERMANENT BYPASS INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- EXCAVATIONS CONDUCTED ACCORDING TO OSHA STANDARD 29 PART 1916
- INVERT ELEVATIONS OF BYPASS ALLOW FLOW THROUGH BYPASS
- DURING INSTALLATION, FLOW FROM INLET TO OUTLET IS TEMPORARILY RE-ROUTED
- INLET AND OUTLET PIPE OPENINGS WITHIN SEPARATOR WALLS AND FLOORS PERMANENTLY PLUGGED
- PIPE LEAK TEST PERFORMED ACCORDING TO CONTRACT DOCUMENTS

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

2. DUST CONTROL

ACTION TAKEN NO DUST!

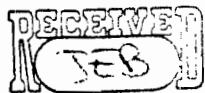
3. REMARKS

TESTED BETWEEN MH #2 TO MH #4  
EXFILTRATION TEST PASS THIS DATE  
TESTING BETWEEN MH #1 - #2 REMAINS.

INSPECTOR Kim W. Left  
REVIEWED BY Jonathan G. Gennel

DATE 10.16.92  
DATE 10/29/92

001 4 1532



FORM A-5  
SHEET 1 OF 1  
INSPECTION DATE 10.28.92

INSTALL SEPARATOR BYPASS

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- PERMANENT BYPASS INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- EXCAVATIONS CONDUCTED ACCORDING TO OSHA STANDARD 29 PART 1916
- INVERT ELEVATIONS OF BYPASS ALLOW FLOW THROUGH BYPASS
- DURING INSTALLATION, FLOW FROM INLET TO OUTLET IS TEMPORARILY RE-ROUTED
- INLET AND OUTLET PIPE OPENINGS WITHIN SEPARATOR WALLS AND FLOORS PERMANENTLY PLUGGED
- PIPE LEAK TEST PERFORMED ACCORDING TO CONTRACT DOCUMENTS

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

2. DUST CONTROL

ACTION TAKEN \_\_\_\_\_

3. REMARKS

COMPLETED TESTING OF BYPASS  
BETWEEN AH#1 - 2  
BY PASS NOW COMPLETE.

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 10.28.92  
DATE 10/29/92



**FORM A-6**

**REMOVE AQUEOUS PHASE**

# REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 1/29/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓	—	—
✓	—	—
✓	—	—
✓	—	—

## 2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 0 - 5000 GAL.

—	—	—
---	---	---

## 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS 0 TO 5000 GALS. - NO SPILLAGE.  
NO VAPORS NOTED
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

OCT 8 1992



INSPECTOR Kenn W. Lippert  
REVIEWED BY Jonathan Brangos

DATE 10-1-92  
DATE 10-9-92

REMOVE AQUEOUS PHASE

FORM A-6

SHEET 1 OF 1

INSPECTION DATE 9/29/92

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓

—

—

✓

—

—

✓

—

—

✓

—

—

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 5000 TO 10,000 GAL

✓

—

—

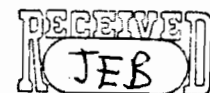
3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

NO SPILLAGE

OCT 8 1992



INSPECTOR

REVIEWED BY

Kenn W. Sullivan  
Jonathan Brandes

DATE 10-1-92

DATE 10-4-92



REMOVE AQUEOUS PHASE

FORM A-6

SHEET 1 OF 1

INSPECTION DATE 9/29/92

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓ — —

✓ — —

✓ — —

✓ — —

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 10,000 TO 15,000 GAL

✓ — —

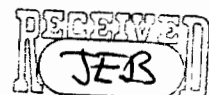
3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED.

4. REMARKS

NO SPILLAGE OCCURRED.

OCT 8 1992



INSPECTOR Kim W. Laffol

REVIEWED BY Jonathan Brander

DATE 10-1-92

DATE 10-9-92

REMOVE AQUEOUS PHASE

FORM A-6

SHEET 1 OF 1

INSPECTION DATE 9/29/92

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓ — —

- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED

✓ — —

- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER

✓ — —

- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓ — —

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 15,000 TO 20,000 GAL

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS NO SPILLAGE NOTED

OCT 8 1992

RECEIVED  
JEB

INSPECTOR Kim W. [Signature]

REVIEWED BY [Signature]

DATE 10-1-92

DATE 10-9-92

# REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/29/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓ — —

- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED

✓ — —

- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER

✓ — —

- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓ — —

## 2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 20,000 TO 25,000 GAL

✓ — —

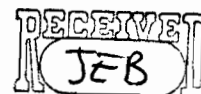
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

## 4. REMARKS

NO SPILLAGE OCCURRED

OCT 8 1992



INSPECTOR

REVIEWED BY

Kam W. Lippell  
Jonathan Brantley

DATE 10-1-92

DATE 10-9-92

REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/30/91

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 25K TO 30,000 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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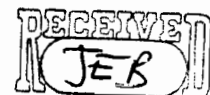
3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

NO SPILLS

OCT 18 1992



INSPECTOR  
REVIEWED BY

[Signature]  
[Signature]

DATE 10-1-92  
DATE 10-9-92

REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/30/92

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM  
SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS

✓ — —

- AQUEOUS PHASE REMOVED WITH  
MINIMAL TURBULENCE INTRODUCED

✓ — —

- AQUEOUS PHASE REMOVED WITH  
MINIMAL DISTURBANCE TO THE  
SLUDGE LAYER

✓ — —

- OPERATION CONDUCTED WITH  
MINIMAL SPILLAGE

✓ — —

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 30,000 TO 35,000 GAL

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS NO SPILLS

OCT 8 1992



INSPECTOR Kim W. Luff  
REVIEWED BY Jonathan Branks

DATE 10-1-92  
DATE 6-9-92

REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/30/92

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 35,000 TO 40,000 GAL.

<u>✓</u>	<u>      </u>	<u>      </u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

NO SPILLS

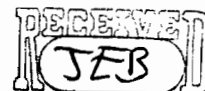
\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

OCT 8 1992



INSPECTOR Kim W. [Signature]  
REVIEWED BY Jonathan Brumley

DATE 10-1-92  
DATE 10-9-92

# REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/30/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM  
SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS

✓              

- AQUEOUS PHASE REMOVED WITH  
MINIMAL TURBULENCE INTRODUCED

✓              

- AQUEOUS PHASE REMOVED WITH  
MINIMAL DISTURBANCE TO THE  
SLUDGE LAYER

✓              

- OPERATION CONDUCTED WITH  
MINIMAL SPILLAGE

✓              

## 2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 40,000 TO 45,000 GAL

✓              

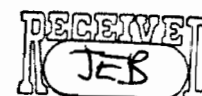
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

## 4. REMARKS NO SPILLS OCCURRED

OCT 8 1992



INSPECTOR Sam W. Luff

REVIEWED BY Jonathan Brinkley

DATE 10-1-92

DATE 10-9-92

# REMOVE AQUEOUS PHASE

FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 9/30/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓              

- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED

✓              

- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER

✓              

- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓              

## 2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 45,000 TO 50,000 GAL

✓              

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

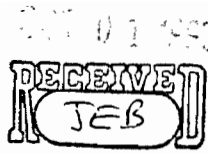
NO SPILLS

OCT 8 1992  
RECEIVED  
JEB

INSPECTOR Kim W. Luff  
REVIEWED BY Jonathan Brown

DATE 10-1-92  
DATE 10-9-92





FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 10-1-92

REMOVE AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓ 10-1-92

- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED

✓ 10-1-92

- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER

✓ 10-1-92

- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓ 10-1-92

2. QUANTITY OF AQUEOUS PHASE REMOVED

50,000 GAL ± AS OF 10-1-92

- QUANTITY \_\_\_\_\_

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS REPORTED BY SSO.

4. REMARKS

NO SPILLAGE OCCURRED.

PUMPING OPERATIONS COMMENCED 9/29/92 (TUES)

PUMPING NOT COMPLETE AS OF 10-1-92

INSPECTOR *Kim W. Lefell*

REVIEWED BY *Jonathan Brando*

DATE 10-1-92

DATE 10/2/92

OCT 28 1992



FORM A-6

SHEET 1 OF 1

INSPECTION DATE 10/12/92

REMOVE AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

✓

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✓

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✓

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✓

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2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 23,400  
72,900 TTD

✓

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—

3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

\_\_\_\_\_

4. REMARKS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

INSPECTOR

REVIEWED BY

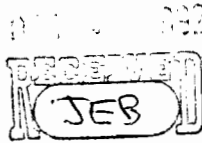
Kim W. Lepel  
Jonathan Brunkley

DATE

10/12/92

DATE

10/29/92



FORM A-6  
SHEET 1 OF 1  
INSPECTION DATE 10-13-92

REMOVE AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE REMOVED FROM SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- AQUEOUS PHASE REMOVED WITH MINIMAL TURBULENCE INTRODUCED
- AQUEOUS PHASE REMOVED WITH MINIMAL DISTURBANCE TO THE SLUDGE LAYER
- OPERATION CONDUCTED WITH MINIMAL SPILLAGE

<u>✓</u>	<u>    </u>	<u>    </u>
<u>✓</u>	<u>    </u>	<u>    </u>
<u>✓</u>	<u>    </u>	<u>    </u>
<u>✓</u>	<u>    </u>	<u>    </u>

2. QUANTITY OF AQUEOUS PHASE REMOVED

- QUANTITY 82,000 TTD  
9,100 GAL THIS DATE.

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS.

4. REMARKS

NO SPILLAGE  
PUMPED FROM WET WELL TO 100K ACQUITANK

INSPECTOR *Kim W. Sullivan*  
REVIEWED BY *Jonathan Braggs*

DATE 10-13-92  
DATE 10/29/92



**FORM A-7**

**INSTALL ACCESS AND COVER**

# INSTALL ACCESS AND COVER

FORM A-7  
SHEET 1 OF 1  
INSPECTION DATE 9-17-92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- PORTABLE STAIRWAYS LEADING IN AND OUT OF THE SEPARATOR CELLS (MINIMUM OF TWO)
- STAIRWAYS ARE OSHA APPROVED OR EQUIVALENT
- RAIN COVER PLACED OVER SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓	—	—
✓	—	—
✓	—	—

## 2. VAPOR CONTROL

✓

ACTION TAKEN NO VAPORS NOTED BY SSO

3. REMARKS NW CORNER HAS TEMP. POST SUPPORT  
- SUPPORT WILL BE REPLACED ONCE BY-PASS  
LINE IS INSTALLED.

SEP 17 1992  
RECEIVED  
JEB

INSPECTOR Kim W. Lefko  
REVIEWED BY Jonathan Bruneles

DATE 9-17-92  
DATE 9/17/92



**FORM A-8**

**TREATMENT OF AQUEOUS PHASE**



## TREATMENT OF AQUEOUS PHASE

FORM A-8

SHEET 1 OF 1INSPECTION DATE 10-9-92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

—

—

✓

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

- SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- AQUEOUS PHASE LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE (INTO MOUNTAIN)

✓

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—

## 2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY DAILY REPORT.  
EST.

—

—

✓

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS4. REMARKS - SAMPLE TO BE TESTED.

—  
—  
—  
—

OCT 14 1992

INSPECTOR Kim W. HallREVIEWED BY Matthew R. BrownDATE 10-9-92  
DATE 10/14/92

FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 10-10-92

ACCEPT	REJECT	N/A
--------	--------	-----

- |   |  |   |
|---|--|---|
| ✓ |  |   |
| ✓ |  |   |
| ✓ |  |   |
|   |  | ✓ |

- QUANTITY DAILY REPORT.

**ACTION TAKEN** \_\_\_\_\_

REMARKS WATER TO BE ANALYZED.  
FILTERS PLUGGING QUICKER THAN ANTICIPATED -  
ADD'L FILTERS ORDERED

OCT 15 1992



INSPECTOR Kim W. Kelly  
REVIEWED BY Ernest Barnes

DATE 10-10-92  
DATE 15/Oct/92

## TREATMENT OF AQUEOUS PHASE

FORM A-8

SHEET 1 OF 1INSPECTION DATE 10-11-92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓——

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓——

- SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓——

- AQUEOUS PHASE LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

——✓

## 2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY DAILY REPORT  
20,000 gal

——✓

## 3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS.

## 4. REMARKS

WATER TO BE ANALYZED - NO  
QUANTITY AS FILTRATE IS BEING PUMPED INTO  
30 K MOUTANK

OCT 15 1992



INSPECTOR

REVIEWED BY

King W. Lefel  
Franklin DanielsDATE 10-12-92DATE 15/Oct/92

FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 10-13-92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓      —      —

- OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓      —      —

- SYSTEM EQUIPMENT  
FUNCTIONS WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

✓      —      —

- AQUEOUS PHASE LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

—      —      ✓

2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY DAILY REPORT

—      —      ✓

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS.

4. REMARKS WATER PUMPED INTO 31 K MOUTANK -

NO FILTRATION 10-12-92 DUE TO PLUGGED FILTERS -

NO FILTERS ARRIVED & PUMPING RESUMED

OCT 15 1992



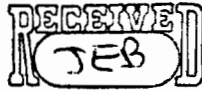
INSPECTOR Kim W. [Signature]

REVIEWED BY Matthew [Signature]

DATE 10-13-92

DATE 15 Oct 92

1992



FORM A-8

SHEET 1 OF 1

INSPECTION DATE 10.15.92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

\* ✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

- SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

\* ✓

—

—

- AQUEOUS PHASE LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

\*\*

—

—

✓

2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY DAILY REPORT

33,000 GALLONS

—

—

—

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED.

4. REMARKS

\* WATER BEING TESTED FOR COMPLIANCE

\*\* WATER BEING PUMPED INTO (2ND) EAST 31K TANK

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

Kim W. L. [Signature]

REVIEWED BY

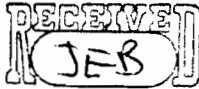
Jonathan Brunkes [Signature]

DATE

10.15.92

DATE

10/29/92



FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 10-16-92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓

—

—

- SYSTEM EQUIPMENT  
FUNCTIONS WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

✓

—

—

- AQUEOUS PHASE LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

—

—

✓

2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY 45,000 TPD

✓

—

—

3. VAPOR CONTROL

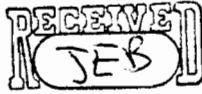
ACTION TAKEN NO VAPORS

4. REMARKS

INSPECTOR Kup Leflo  
REVIEWED BY Jonathan Daniels

DATE 10-16-92  
DATE 10/20/92



FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 10-20-92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒ ✓              

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒ ✓              

- SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒ ✓              

- AQUEOUS PHASE LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

              ✓

2. QUANTITY OF AQUEOUS PHASED TREATED

- QUANTITY 52,000  
22,000 TTD

3. VAPOR CONTROL

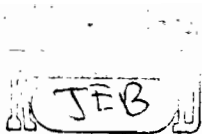
ACTION TAKEN NO VAPORS NOTED

4. REMARKS WATER STORED ON SITE & BEING TESTED

INSPECTOR *[Signature]*  
REVIEWED BY *[Signature]*

DATE 10-20-92  
DATE 10/30/92



FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 10/28/92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓      —      —

- OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓      —      —

- SYSTEM EQUIPMENT  
FUNCTIONS WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

✓      —      —

- AQUEOUS PHASE LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

—      —      ✓

2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY 78,000 TTD

✓      —      —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

AWAITING ANALYTICAL RESULTS

INSPECTOR  
REVIEWED BY

*Kim W. Field*  
*Jennitha Rodriguez*

DATE 10-28-92  
DATE 10/30/92





FORM A-8  
SHEET 1 OF 1  
INSPECTION DATE 11-2-92

TREATMENT OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

- SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- AQUEOUS PHASE LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

2. QUANTITY OF AQUEOUS PHASE TREATED

- QUANTITY 82,000 TTD

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS AWAITING ANALYTICAL RESULTS.

INSPECTOR Kim W. Lepore  
REVIEWED BY Jonathan Brancato

DATE 11-2-92  
DATE 11/7/92



**FORM A-9**

**STORAGE OF AQUEOUS PHASE**

## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 9/29/92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

☒☐☐☒☐☐☐☐☒

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 0 GAL TO 25,000 GAL.

☒☐☐

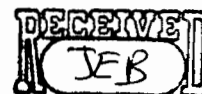
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED.

## 4. REMARKS

100,000 GAL DOUBLE LINE ACID TANK  
BEING UTILIZED

OCT 8 1992

INSPECTOR Kim W. LippertREVIEWED BY Jonathan S. BoudierDATE 10-1-92DATE 10-9-92

STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1

INSPECTION DATE 9/30/92

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓

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✓

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✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 25,000 TO 50,000 GAL.

✓

—

—

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

OCT 8 1992



INSPECTOR  
REVIEWED BY

[Signature]  
[Signature]

DATE 10-1-92  
DATE 10-4-92

# STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1

INSPECTION DATE 10/1/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OCT 5 1992



INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 10-1-92  
DATE 10-9-92

## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 10/2/92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓——✓————✓

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

✓——

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

OCT 8 1992

INSPECTOR Kim W. [Signature]REVIEWED BY Jonathan [Signature]DATE 10-2-92DATE 10-9-92

# STORAGE OF AQUEOUS PHASE

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10/3/93

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

## 2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 50,000 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

## 4. REMARKS

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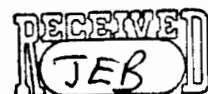
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OCT 8 1992



INSPECTOR Kenn W. Luff  
REVIEWED BY Jonathan A. Bragato

DATE 10-5-92  
DATE 10-9-92



## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 10/4/92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓——✓————✓

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

✓——

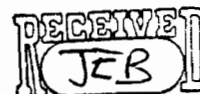
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTED ON 10/5/92

OCT 8 1992

INSPECTOR Kim W. LiffREVIEWED BY Jonathan BrakesDATE 10-5-92DATE 10-4-92

## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 10/5/92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓——✓————✓

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

✓——

## 3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS NOTED

## 4. REMARKS

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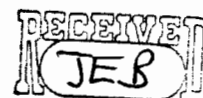
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OCT 8 1992

INSPECTOR  
REVIEWED BYKim W. Lefler  
Matthew BrindleyDATE 10-5-92  
DATE 10-9-92

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10/6/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_  
\_\_\_\_\_

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OCT 8 1992  
JEB

INSPECTOR Kenn W. Schmitt  
REVIEWED BY Jonathan Bragakis

DATE 10-6-92  
DATE 10-9-92

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10/7/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

<u>✓</u>	<u>      </u>	<u>      </u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

OCT 8 1992



INSPECTOR  
REVIEWED BY

*Kem W. Ladd*  
*James W. Brinkley*

DATE 10-7-92  
DATE 10-9-92

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10/8/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

✓      —      —

✓      —      —

—      —      ✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL

✓      —      —

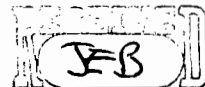
3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

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\_\_\_\_\_  
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\_\_\_\_\_

OCT 8 1992



INSPECTOR

REVIEWED BY

Kim W. Schmitt  
Jonathan Brinkley

DATE

DATE

10-8-92

10-9-92

## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 10-9-92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓——✓————✓

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50,000 GAL.

✓——

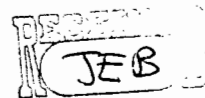
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

TREATMENT STARTED THIS DATE (SEE A-8)

OCT 14 1992



INSPECTOR

REVIEWED BY

DATE

DATE

STORAGE OF AQUEOUS PHASE

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-10-92

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50 K gal

<u>✓</u>	<u>      </u>	<u>      </u>
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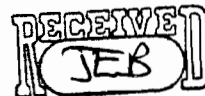
3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OCT 14 1992



INSPECTOR Kenn W. Left  
REVIEWED BY Jonathan B. Jones

DATE 10-10-92  
DATE 10/14/92

## STORAGE OF AQUEOUS PHASE

FORM A-9

SHEET 1 OF 1INSPECTION DATE 10-11-92

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓——✓————✓

## 2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 50 K GAL

✓——

## 3. VAPOR CONTROL

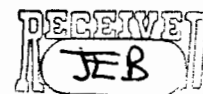
ACTION TAKEN

NO VAPORS

## 4. REMARKS

INSPECTED ON 10-12-92- WATER BEING TREATED

OCT 14 1992



INSPECTOR

REVIEWED BY

Kim W. [Signature]  
Jonathan [Signature]

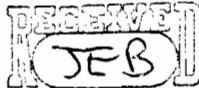
DATE

10-12-92

DATE

10/14/92





FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-12-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓ — —

✓ — —

— — —

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50K GAL KA  
72,900 TTD

✓ — —

3. VAPOR CONTROL

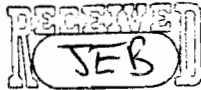
ACTION TAKEN NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR K. W. L. L.  
REVIEWED BY Jonathan Branks

DATE 10-12-92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-13-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓ — —

✓ — —

— — —

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 80 K GAL Kuf  
82,000 TTD

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

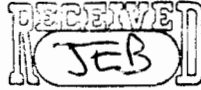
4. REMARKS

INSPECTOR Kim W. Left  
REVIEWED BY Matthew Brandes

DATE 10-13-92  
DATE 10/29/92

10-14-92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-14-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY

✓ — —

- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE

✓ — —

- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

— — ✓ N/A

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 50K + 40K  
82,000 TTD

— — ✓

3. VAPOR CONTROL

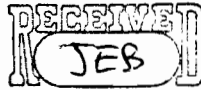
ACTION TAKEN NO VAPORS

4. REMARKS

INSPECTOR Kim W. Ladd  
REVIEWED BY Jonathan R. Miles

DATE 10-14-92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-15-92

# STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TID kg

<u>—</u>	<u>—</u>	<u>✓</u>
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## 3. VAPOR CONTROL

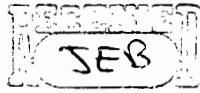
ACTION TAKEN NO VAPORS.

## 4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kim W. Lipp  
REVIEWED BY Jonathan Brantley

DATE 10-15-92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-16-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TTD

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR *Kim W. Ladd*  
REVIEWED BY *Jonathan Brenner*

DATE 10-16-92  
DATE 10/29/92

FORM A-9

SHEET / OF /

INSPECTION DATE 10-17-92

### STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓

\_\_\_\_\_

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✓

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\_\_\_\_\_

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✓

## 2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TTD

✓

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### 3. VAPOR CONTROL

**ACTION TAKEN** \_\_\_\_\_  
 \_\_\_\_\_

#### 4. REMARKS

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**INSPECTOR**

REVIEWED BY \_\_\_\_\_

DATE 10-19-92

DATE 10-29-92

JEB

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-18-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TTD.

<u>✓</u>	<u>      </u>	<u>      </u>
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3. VAPOR CONTROL

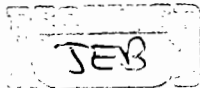
ACTION TAKEN \_\_\_\_\_  
\_\_\_\_\_

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR *Kim W. Ladd*  
REVIEWED BY *James H. Bowers*

DATE 10-19-92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-19-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓      —      —

✓      —      —

—      —      ✓

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TTD

✓      —      —

3. VAPOR CONTROL

ACTION TAKEN NONE NOTED (VAPORS)

4. REMARKS

INSPECTOR Kim W. Lipp  
REVIEWED BY Jonathan B. Bland

DATE 10-19-92  
DATE 10/29/92



JEB

FORM A-9

SHEET 1 OF 1

INSPECTION DATE 10-20-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓

—

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✓

—

—

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—

✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TTD

✓

—

—

3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

REVIEWED BY

*Kimberly L. Ladd*  
*Jonathan Brinkley*

DATE

DATE

10-20-92

10/29/92

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-21-92

## STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

[illegible]

## 2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82 K TTD

✓                                                                

### 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

#### 4. REMARKS

INSPECTOR Samuel A. Sisk  
REVIEWED BY Jonathan Brandis

DATE 10-21-92  
DATE 10/29/92

010 47 092



FORM A-9

SHEET 1 OF 1INSPECTION DATE 10/22/92

## STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY

✓

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—

- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE

✓

—

—

- STORAGE CONTAINERS COVERED WHEN NOT IN USE

—

—

✓

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TTD

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

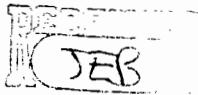
## 4. REMARKS

INSPECTOR

REVIEWED BY

Kim W. Left  
Jonathan J. Sanders

DATE 10/22/92DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-23-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TID

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS.

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR KW Lepso  
REVIEWED BY Andrew J. Banks

DATE 10-23-92  
DATE 10/24/92

7-132  
JEF

FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-24-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION	ACCEPT	REJECT	N/A
- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY	<u>✓</u>	<u>—</u>	<u>—</u>
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE	<u>✓</u>	<u>—</u>	<u>—</u>
- STORAGE CONTAINERS COVERED WHEN NOT IN USE	<u>—</u>	<u>—</u>	<u>✓</u>
2. QUANTITY OF AQUEOUS PHASED STORED			
- QUANTITY <u>82,000 TID</u>	<u>✓</u>	<u>—</u>	<u>—</u>

3. VAPOR CONTROL  
ACTION TAKEN NO VAPORS

4. REMARKS  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR K. J. Field  
REVIEWED BY Jonathan B. Bunker

DATE 10-24-92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-25-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TTD

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED

4. REMARKS

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\_\_\_\_\_

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 10-26-92  
DATE 10-29-92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10.26.92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TID

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS NOTED.

4. REMARKS

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\_\_\_\_\_  
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INSPECTOR

REVIEWED BY

Kim W. Leford  
Jonathan B. Leford

DATE 10.26.92

DATE 11/29/92

0 1 2 1992



FORM A-9

SHEET 1 OF 1INSPECTION DATE 10-27-92

## STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

✓

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✓

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—

✓

## 2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 82,000 TID

✓

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—

## 3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS

## 4. REMARKS

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INSPECTOR

REVIEWED BY

DATE 10-27-92

DATE \_\_\_\_\_





FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10.28.92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 82,000 TTD

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

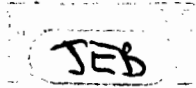
ACTION TAKEN NO VAPORS NOTED

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kenn W. Leffell  
REVIEWED BY James H. [Signature]

DATE 10.28.92  
DATE 10/29/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-29-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 50,638 GAL

<u>—</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 10-29-92  
DATE 11/7/92

JEB

FORM A-9

SHEET 1 OF 1

INSPECTION DATE 10.30.92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓

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✓

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✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 58,638 GAL

✓

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3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_

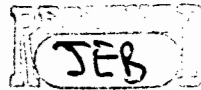
INSPECTOR

REVIEWED BY

Kym W. Lyle  
Frederick Brando

DATE 10.30.92

DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 10-31-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 58,438 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

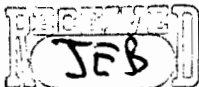
ACTION TAKEN NO VAPORS

4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kim W. Lippel  
REVIEWED BY Nathan Brinkley

DATE 10-31-92  
DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11-1-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY

✓

—

—

- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE

✓

—

—

- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

—

—

✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 58,638 GAL

✓

—

—

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

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\_\_\_\_\_  
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\_\_\_\_\_

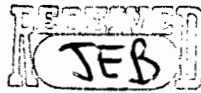
INSPECTOR

REVIEWED BY

King W. L. L. L.  
Jonathan Brantley

DATE 11-1-92

DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11-2-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 32,390

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS DISPOSED 26,295 GAL TODAY.

\_\_\_\_\_

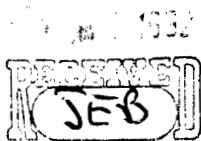
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INSPECTOR *Kimberly L. Lytle*  
REVIEWED BY *Jonathan Brinkley*

DATE 11-2-92  
DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11.3.92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 32,390

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

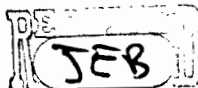
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\_\_\_\_\_

INSPECTOR

REVIEWED BY

Kim W. Reed  
Jonathan Blomley

DATE 11.3.92  
DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11-4-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>  /  </u>	<u>  </u>	<u>  </u>
<u>  /  </u>	<u>  </u>	<u>  </u>
<u>  </u>	<u>  </u>	<u>  ✓  </u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 32,390 Gals

<u>  ✓  </u>	<u>  </u>	<u>  </u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

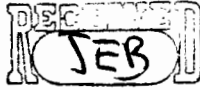
4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kim W. Lepo  
REVIEWED BY Jonathan Brinkley

DATE 11-4-92  
DATE 11/7/92





FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11-5-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 32,390 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

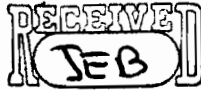
ACTION TAKEN \_\_\_\_\_  
\_\_\_\_\_

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kim W. Lipp  
REVIEWED BY Jonathan Roberts

DATE 11-5-92  
DATE 11/7/92



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11-6-92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT      REJECT      N/A

- AQUEOUS PHASE STORAGE  
CONTAINERS PROVIDE  
ADEQUATE CAPACITY
- STORAGE CONTAINERS IN  
ACCORDANCE WITH STANDARD  
INDUSTRY REQUIREMENTS  
AND PREVENT SPILLAGE
- STORAGE CONTAINERS  
COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 32,390

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

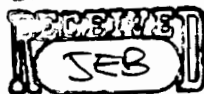
4. REMARKS

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kym W. Laff  
REVIEWED BY James B. Blevins

DATE 11-6-92  
DATE 11/7/92

DEC 30 1992



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11/7/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 32,370

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

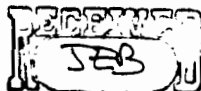
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Post-It™ brand fax transmittal memo 7671		# of pages > 19
To <u>John Brandes</u>	From <u>Jack</u>	
Co. _____	Co. _____	
Dept. _____	Phone # _____	
Fax # _____	Fax # _____	

INSPECTOR [Signature]  
REVIEWED BY Jonathan Brandes

DATE 11/7/92  
DATE 11/30/92

DEC 30 1992



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11/8/92

# STORAGE OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 32,390

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

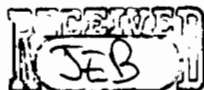
[Signature]  
Jonathan Brakes

DATE

DATE

11/8/92  
11/30/92

DEC 30 1992



FORM A-9  
SHEET 1 OF 1  
INSPECTION DATE 11/9/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 5,436 GAL

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

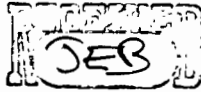
DISCHARGED 26,954 GAL TO  
POTW TODAY

INSPECTOR  
REVIEWED BY

J. Bruehl  
Matthew Brandes

DATE 11/9/92  
DATE 12/30/92

DEC 30 1992



FORM A-9

SHEET 1 OF 1

INSPECTION DATE 11/10/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

✓ — —

✓ — —

— — ✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 9,136 GAL

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

INSPECTOR

REVIEWED BY

[Signature]  
[Signature]

DATE

DATE

11/10/92  
12/30/92

DEC 30 1992



FORM A-9

SHEET 1 OF 1

INSPECTION DATE 11/11/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY
- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE
- STORAGE CONTAINERS COVERED WHEN NOT IN USE

<u>✓</u>	<u>      </u>	<u>      </u>
<u>✓</u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>✓</u>

2. QUANTITY OF AQUEOUS PHASED STORED

- QUANTITY 5,436 GAL

<u>✓</u>	<u>      </u>	<u>      </u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

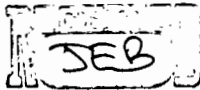
4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 11/11/92  
DATE 12/30/92

DEC 30 1992



FORM A-9

SHEET 1 OF 1

INSPECTION DATE 11/12/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY

✓

—

—

- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE

✓

—

—

- STORAGE CONTAINERS COVERED WHEN NOT IN USE

—

—

✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY 5,136 GAL

✓

—

—

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

REVIEWED BY

J. Brueckel  
Jonathan Brueckel

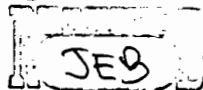
DATE

DATE

11/12/92  
11/30/92



DEC 30 1992



FORM A-9

SHEET 1 OF 1

INSPECTION DATE 11/13/92

STORAGE OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE STORAGE CONTAINERS PROVIDE ADEQUATE CAPACITY

✓ — —

- STORAGE CONTAINERS IN ACCORDANCE WITH STANDARD INDUSTRY REQUIREMENTS AND PREVENT SPILLAGE

✓ — —

- STORAGE CONTAINERS COVERED WHEN NOT IN USE

— — ✓

2. QUANTITY OF AQUEOUS PHASE STORED

- QUANTITY — 0 —

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

DISCHARGED 5436 GAL OF  
STORED AQUEOUS PHASE (NOW COMPLETE)

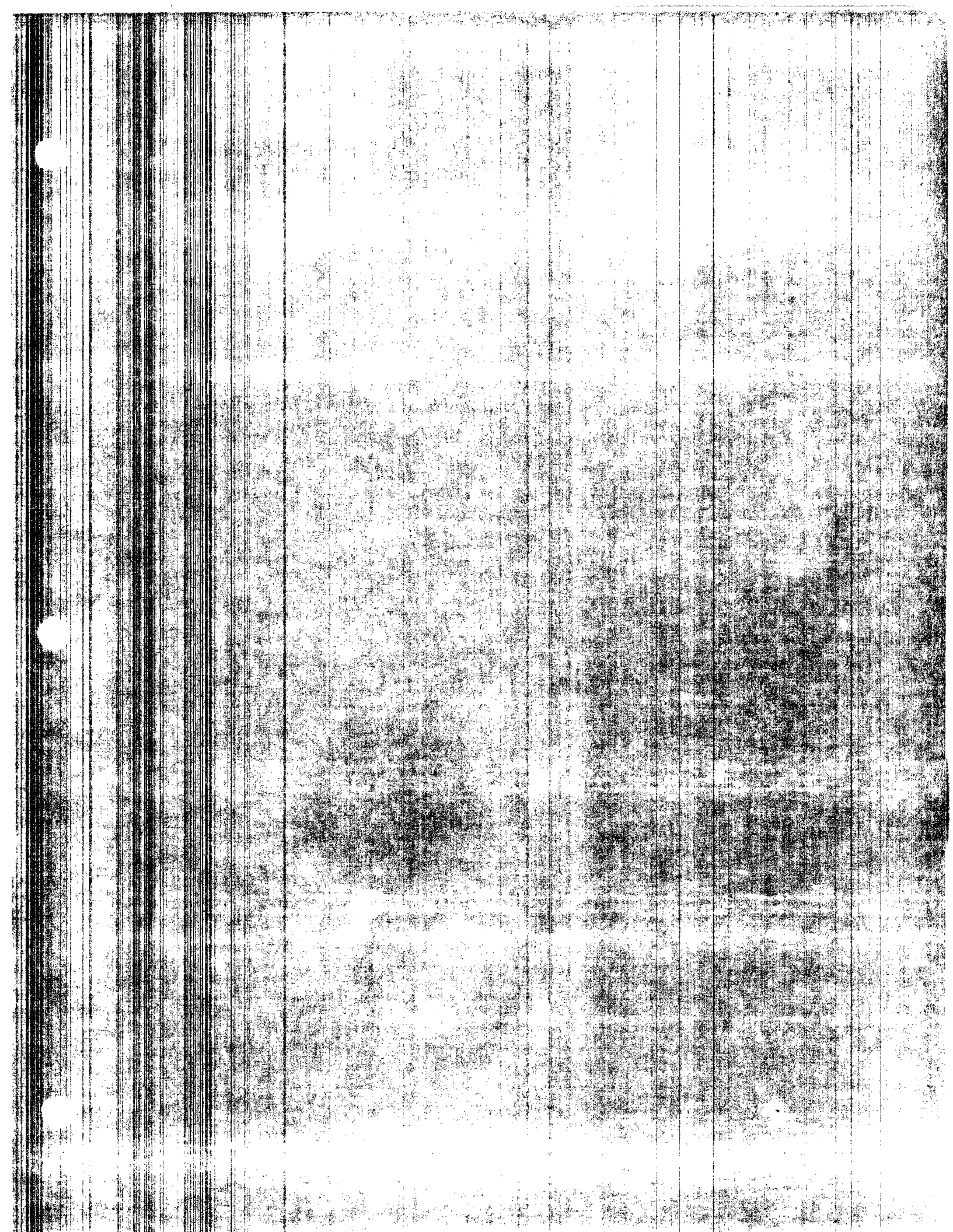
INSPECTOR

REVIEWED BY

J. B. Buehler  
Jonathan Brandes

DATE 11/13/92

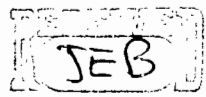
DATE 11/20/92



**FORM A-10**

**DISPOSAL OF AQUEOUS PHASE**

5000 741  
10-27-92



FORM A-10  
SHEET 1 OF 1  
INSPECTION DATE 10-27-92

DISPOSAL OF AQUEOUS PHASE

- |   | ACCEPT   | REJECT   | N/A      |
|---|----------|----------|----------|
| 1. VERIFICATION INSPECTION                              |          |          |          |
| - AQUEOUS PHASE TRANSPORTED TO POTW BY LICENSED CARRIER | <u>✓</u> | <u>—</u> | <u>—</u> |
| - AQUEOUS PHASE RELEASED TO POTW IN CONTROLLED MANNER   | <u>✓</u> | <u>—</u> | <u>—</u> |
| 2. QUANTITY OF AQUEOUS PHASE RELEASED TO POTW           |          |          |          |
| - QUANTITY <u>23,362 GAL</u>                            | <u>✓</u> | <u>—</u> | <u>—</u> |

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS PATON'S BUSY BEE - LICENSED HAULER.

23,362 GAL ALL IN ONE DAY ON A SINGLE TRUCK.

- 0 - 5000
- 5000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 23,362

ALL LOAD MET CRITERIA MENTIONED ABOVE.

INSPECTOR *[Signature]*  
REVIEWED BY *[Signature]*

DATE 10-27-92  
DATE

JEB

FORM A-10  
SHEET 1 OF 1  
INSPECTION DATE 11-2-92

DISPOSAL OF AQUEOUS PHASE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE TRANSPORTED TO POTW BY LICENSED CARRIER
- AQUEOUS PHASE RELEASED TO POTW IN CONTROLLED MANNER

✓  
✓

2. QUANTITY OF AQUEOUS PHASE RELEASED TO POTW

- QUANTITY 26,248 (49,610 TTD)

✓

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS.

4. REMARKS

PATTENS BUSY BEE TRANSPORTER  
26,248 SHIPPED TODAY

ALL LOADS SHIPPED IN A SINGLE DAY

23,362 TO 28,362  
28,362 TO 33,362  
38,362 TO 38,362  
38,362 TO 43,362  
43,362 TO 48,362  
48,362 TO 49,610

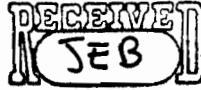
ALL LOADS MET  
CRITERIA DESCRIBED  
ABOVE

INSPECTOR

REVIEWED BY

Kim W. Lillard  
Jonathan Brooks

DATE 11-2-92  
DATE 11/7/92



FORM A-10  
SHEET 1 OF 1  
INSPECTION DATE 11-9-92

DISPOSAL OF AQUEOUS PHASE

1. VERIFICATION INSPECTION ACCEPT REJECT N/A

- AQUEOUS PHASE TRANSPORTED TO  
POTW BY LICENSED CARRIER

✓ — —

- AQUEOUS PHASE RELEASED TO  
POTW IN CONTROLLED MANNER

✓ — —

2. QUANTITY OF AQUEOUS PHASE RELEASED TO POTW

- QUANTITY 26,956  
76,564 TIO

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPOR

4. REMARKS VIA SAN. SEWER

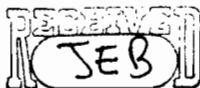
49,610 TO 54,610  
54,610 TO 59,610  
59,610 TO 64,610  
64,610 TO 69,610  
69,610 TO 74,610  
74,610 TO 76,564

ALL LDS  
MET CRITERIA  
DESCRIBED ABOVE

INSPECTOR  
REVIEWED BY

[Signature]  
[Signature]

DATE 11-9-92  
DATE 11/13/92



FORM A-10  
SHEET 1 OF 1  
INSPECTION DATE 11-13-92

## DISPOSAL OF AQUEOUS PHASE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AQUEOUS PHASE TRANSPORTED TO  
POTW BY LICENSED CARRIER

☒☐☐

- AQUEOUS PHASE RELEASED TO  
POTW IN CONTROLLED MANNER

☒☐☐

## 2. QUANTITY OF AQUEOUS PHASE RELEASED TO POTW

- QUANTITY 82,000 TTD

☒☐☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

VIA SAN. SEWER.

74,564 GAL TO 82,000 GAL  
REMAINDER - RAIN WATER

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 11-13-92  
DATE 11/14/92





**FORM A-11**

**REMOVE AND DEWATER SLUDGE**

FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 10-9-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY NO WGT'S TO DATE

<u>—</u>	<u>—</u>	<u>✓</u>
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3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

WORK INITIATED 10-9-92  
- STORED IN ROLL-OFFS ON-SITE

OCT 14 1992

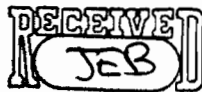


INSPECTOR Kim W. Lefko  
REVIEWED BY Jonathan Bravetti

DATE 10-9-92  
DATE 10/14/92



OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.10.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 154 - 30CY TTD

<u>✓</u>	<u>—</u>	<u>—</u>
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## 3. VAPOR CONTROL

ACTION TAKEN

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## 4. REMARKS

182.25


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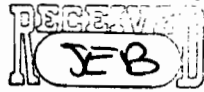
INSPECTOR

REVIEWED BY

*Kym W. Field*  
*Nathan Brenner*

DATE 10.10.92DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.12.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

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✓

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✓

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✓

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✓

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## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 45 CY TTD<sup>±</sup>

✓

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## 3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

\_\_\_\_\_

## 4. REMARKS

135.25

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

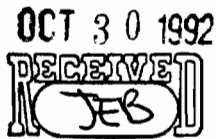
\_\_\_\_\_

INSPECTOR

REVIEWED BY

DATE 10.12.92DATE 10/30/92



FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 10.13.92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 60 CY TIOI

<u>/</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

4. REMARKS

141.25

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

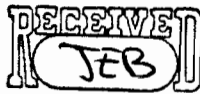
REVIEWED BY

[Signature]  
[Signature]

DATE 10.13.92

DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.14.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

✓

✓

✓

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 75 CY TID

✓

## 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

## 4. REMARKS

206.25

INSPECTOR

REVIEWED BY

DATE 10.14.92DATE 10/30/92

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044

FORM A-11

SHEET 1 OF 1

INSPECTION DATE 10.15.92

## 1. VERIFICATION INSPECTION

REJECT

- SLUDGE REMOVED IN ACCORDANCE  
WITH CONTRACT DOCUMENTS

✓

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\_\_\_\_\_

- SLUDGE DEWATERED IN ACCORDANCE  
WITH CONTRACT DOCUMENTS

✓

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- ALL EQUIPMENT FUNCTIONS WITHIN  
OPERATING PARAMETERS SPECIFIED  
IN CONTRACT DOCUMENTS

✓

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- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE

✓

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- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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- QUANTITY 15 cy 90 cy T10

✓

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### ACTION TAKEN

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184.25

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REVIEWED BY

Kenn W. Feld  
Matthews Bros.

DATE 10-15-92

DATE 10/30/92



RECEIVED  
JEB






















SHEET 1 OF 1

## REMOVE AND DEWATER SLUDGE

## ACCEPT

REJECT

N/A

- |  |   |   |
|--|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

- QUANTITY 15 cy 105 cy 110 ± ✓          

ACTION TAKEN \_\_\_\_\_

229.25

INSPECTOR Sam W. [Signature]  
REVIEWED BY Martha Brancos

DATE 10.16.92  
DATE 10/30/92

OCT 30 1992  
RECEIVED  
JES

FORM A-11

SHEET 1 OF 1

INSPECTION DATE 10.17.92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 120 CY TTD

✓	—	—
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3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

4. REMARKS

210-25

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INSPECTOR

REVIEWED BY

Kim W. Lillard  
Jonathan Broneks

DATE 10.17.92

DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.21.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

✓

✓

✓

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY. 135 CY TTD

✓

## 3. VAPOR CONTROL

ACTION TAKEN

## 4. REMARKS

198.25

INSPECTOR

REVIEWED BY

DATE 10.21.92DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.22.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

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## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY ± 150 CY 110 ± ✓

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## 3. VAPOR CONTROL

ACTION TAKEN

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\_\_\_\_\_

## 4. REMARKS

150.25

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INSPECTOR

REVIEWED BY

DATE 10.22.92DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1

INSPECTION DATE 10.24.92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15cy 165cy TID T ✓

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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS

316.25

INSPECTOR

REVIEWED BY

Kenn W. Ladd  
Jonathan Brubaker

DATE 10.24.92

DATE 10/30/92

RECEIVED  
FEB

SHEET 1 OF 1

## REMOVE AND DEWATER SLUDGE

N/A

- |   |       |       |
|---|-------|-------|
| ✓ | _____ | _____ |
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| ✓ | _____ | _____ |

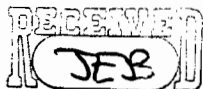
• QUANTITY 15 CY 180 CY 110 I ✓          

ACTION TAKEN \_\_\_\_\_

235-25

DATE 10-26-92  
DATE 10/30/92

OCT 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 10.27.92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

✓

✓

✓

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 cy 195 cy TIO

✓

## 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

## 4. REMARKS

268.25

INSPECTOR

REVIEWED BY

Kim W. Lepp  
Jonathan Brakes

DATE 10.27.92DATE 10/30/92



FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 10-28-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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<u>/</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 cu 210 cu TTD

<u>/</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS

314-25

INSPECTOR  
REVIEWED BY

Kim W. Ladd  
Jonathan Brinkley

DATE 10-28-92  
DATE 10/30/92



RECEIVED  
JES

INSPECTION DATE 10.29.92

N/A

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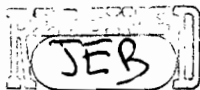
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BY James H. Havelos

DATE 10/30/92

NOV 6 1992



FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 10-30-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 240 CY TTD

<u>✓</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

4. REMARKS

302-25

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INSPECTOR

REVIEWED BY

Kim W. Lyle  
Matthew Bravolas

DATE 10-30-92

DATE 11/7/92

RECEIVED  
JES










SHEET 1 OF 1

INSPECTION DATE 11.3.92

## 1. VERIFICATION INSPECTION

REJECT

N/A

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• QUANTITY 15cy 255cy TTD  $\pm$  ✓          

ACTION TAKEN \_\_\_\_\_

196.25

INSPECTOR Kim W. Felt  
REVIEWED BY Jonathan Brando

DATE 11-3-92  
DATE 11/7/92

RECEIVED  
JEB

SHEET / OF /


INSPECTION DATE 11-4-92

## 1. VERIFICATION INSPECTION

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL



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- QUANTITY 15 CY 270 CY PD<sup>+</sup>

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### ACTION TAKEN

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106.25

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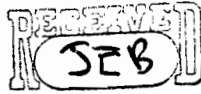
INSPECTOR

REVIEWED BY

DATE 11-4-92

DATE 11/7/92

NOV 6 1992



FORM A-11

SHEET 1 OF 1

INSPECTION DATE 11.5.92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

✓

✓

✓

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 285 CY TTD

✓

3. VAPOR CONTROL

ACTION TAKEN

4. REMARKS

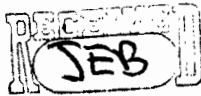
257-25

INSPECTOR  
REVIEWED BY

Kim W. Lippell  
Jonathan Bravels

DATE 11.5.92  
DATE 11/7/92

NOV 6 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 11-6-92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 300 CY ± TTD ✓

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## 3. VAPOR CONTROL

ACTION TAKEN

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## 4. REMARKS

145-25

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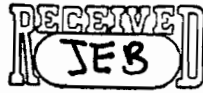
INSPECTOR

Kim W. Lefko

REVIEWED BY

Jonathan BranksDATE 11-6-92DATE 11/7/92

NOV 12 1992



FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 11-7-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 154? 315 TON

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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

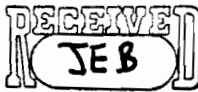
4. REMARKS

339-25

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 11-7-92  
DATE 11/13/92

NOV 12 1992



FORM A-11

SHEET 1 OF 1

INSPECTION DATE 11-8-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 330 TPD

<u>/</u>	<u>—</u>	<u>—</u>
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3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS

140-25

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INSPECTOR

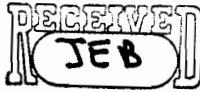
REVIEWED BY

[Signature]  
[Signature]

DATE 11-8-92

DATE 11/13/92





FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 11-10-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY 345 TPD

3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

4. REMARKS

341-25

INSPECTOR

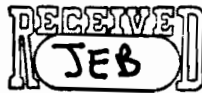
REVIEWED BY

[Signature]  
[Signature]

DATE 11-10-92

DATE 11/13/92

NOV 12 1992



FORM A-11

SHEET 1 OF 1

INSPECTION DATE 11-11-92

REMOVE AND DEWATER SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 154 360 TPD ±

✓	—	—
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3. VAPOR CONTROL

ACTION TAKEN

\_\_\_\_\_

4. REMARKS

200-25

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\_\_\_\_\_  
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\_\_\_\_\_

INSPECTOR

REVIEWED BY

*[Signature]*  
*[Signature]*

DATE 11-11-92

DATE 11/13/92

RECEIVED  
JEB

INSPECTION DATE 11-12-92

## 1. VERIFICATION INSPECTION

N/A

- 
- A handwriting practice sheet for the letter 'i'. It features five rows of practice lines. Each row consists of a solid top line, a dashed midline, and a solid bottom line. The first column contains five lowercase 'i's, each with a numbered arrow indicating the stroke order: 1 for the vertical stem and 2 for the dot. The second column contains five dashed lowercase 'i's for tracing. The third column contains five solid lowercase 'i's for independent practice. The fourth and fifth columns are empty for additional practice.

• QUANTITY 15cy 375cy  $\pm$  110 ✓

ACTION TAKEN \_\_\_\_\_

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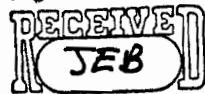
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DATE 11-12-92  
DATE 11/13/92

NOV 17 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 11-13-92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

✓

✓

✓

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 cy ± 390 cy TTD ± ✓

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

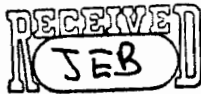
270-25

INSPECTOR

REVIEWED BY

DATE 11-17-92DATE 11/17/92

NOV 17 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 11-17-92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

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## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY ± 405 CY ±  
TID

✓

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—

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

136.25INSPECTOR Kim W. LippREVIEWED BY Jonathan BridgesDATE 11-17-92DATE 11/17/92

DEC 09 1992

JEB

FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 11/19/92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓	—	—
✓	—	—
✓	—	—
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## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15 CY ± 420 CY TTD

✓	—	—
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## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

308-25

INSPECTOR

REVIEWED BY

King W. Left  
Nathan Benets

DATE

DATE

11/19/92  
12/9/92

FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 11-20-92

## 1. VERIFICATION INSPECTION

ACCEPT	REJECT	N/A
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- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓                                                                

✓

✓

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\_\_\_\_\_

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15cy ± 435cy ± 170 ✓

### 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

## 4. REMARKS

142-25

INSPECTOR Kim W. Felt  
REVIEWED BY Jonathan Brames

DATE 11/20-92  
DATE 12/9/92

FORM A-11  
SHEET 1 OF 1  
INSPECTION DATE 11-22-92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- [illegible]

• QUANTITY 15 cy.  $\pm$  450 cy TD  $\pm$  ✓               

ACTION TAKEN \_\_\_\_\_

337-25

INSPECTOR [Signature]  
REVIEWED BY Nathan Brakes

DATE 11-22-92  
DATE 12/9/92



RECEIVED  
JEB

SHEET / OF /

INSPECTION DATE 11-23-92

## 1. VERIFICATION INSPECTION

REJECT

N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓

✓

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✓

✓

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY 15cy ± 465cy ± πD

\_\_\_\_\_

### 3. VAPOR CONTROL

### ACTION TAKEN

## 4. REMARKS

102-25

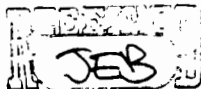
INSPECTOR

REVIEWED BY

DATE 11-23-92

DATE 12/9/92

DEC 30 1992



FORM A-11

SHEET 1 OF 1INSPECTION DATE 11/24/92

## REMOVE AND DEWATER SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE REMOVED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- SLUDGE DEWATERED IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ALL EQUIPMENT FUNCTIONS WITHIN OPERATING PARAMETERS SPECIFIED IN CONTRACT DOCUMENTS
- REMOVAL AND DEWATERING OPERATIONS CONDUCTED WITH MINIMAL SPILLAGE
- DEWATERED SLUDGE PLACED IN SECURE CONTAINER FOR DISPOSAL

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

## 2. QUANTITY OF SLUDGE REMOVED AND DEWATERED

- QUANTITY (172.5CY) 637.5CY ITD ✓

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

NOTE: PREVIOUS ESTIMATED QUANTITY WAS 15CY. ACTUAL IS 18.75CY. THEREFORE 172.5CY IS THE ADJUSTMENT FOR 34 FULL-CEE BOXES @ 12.75CY. OF 3/4 FULL. THIS IS FINAL DAY OF DEWATERING SLUDGE WITH FILTER PRESS OPER.

INSPECTOR

REVIEWED BY

[Signature]  
Jonathan Bonales

DATE

DATE

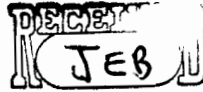
11/24/92  
12/30/92



**FORM A-12**

**TREAT SLUDGE LIQUID FRACTION**

NOV 6 1992



FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 11-2-92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 4000 gal ±

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO. VAPORS

4. REMARKS

INSPECTOR [Signature]  
REVIEWED BY Jonathan Brubaker

DATE 11-2-92  
DATE 11/7/92

NOV 6 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 11-3-92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 8276 GALLONS

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

AWAITING ANALYTICAL RESULTS

INSPECTOR

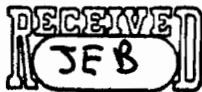
REVIEWED BY

*Kim W. Lefko*  
*Jonathan Brancato*

DATE 11-3-92

DATE 11/7/92

NOV 12 1992

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 11-10-92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 27,364 TTD GAL

✓ — —

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

---

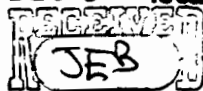
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INSPECTOR  
REVIEWED BY  
Kenneth W. BrakesDATE 11-10-92  
DATE 11/13/92

DEC 30 1992

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 11/11/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☒

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 30,546 TPD

☒☐☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

*[Signature]*  
*Jonathan Bravels*

DATE

DATE

11/11/9212/30/92



DEC 09 1992



FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 11.12.92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

— — ✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 33,727 GAL TTD

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

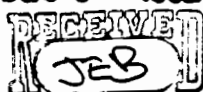
4. REMARKS

INSPECTOR Kim W. Little  
REVIEWED BY Jonathan Branks

DATE 11.12.92  
DATE 12/9/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 11/13/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓	—	—
---	---	---

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓	—	—
---	---	---

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓	—	—
---	---	---

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—	—	✓
---	---	---

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 37,000 GAL (TTD)

✓	—	—
---	---	---

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

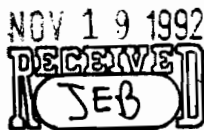
REVIEWED BY

DATE

11/13/92

DATE

12/30/92



## TREAT SLUDGE LIQUID FRACTION

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 11-14-92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE (PUMPED DIRECT AS OF 11/13/92 ✓)

— — —

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 102,722 GAL

✓ — —

## 3. VAPOR CONTROL

ACTION TAKEN HNU USED TO MONITOR ORGANIC VAPOR LEVELS (ALL UNDETECTABLE)

## 4. REMARKS

VIA SANITARY SEWER TO POTW

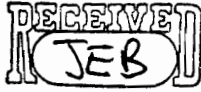
Post-It™ brand fax transmittal memo 7671 # of pages > <u>2</u>	
To <u>Robert</u>	From <u>JACK</u>
Co.	Co.
Dept.	Phone #
Fax #	Fax #

INSPECTOR  
REVIEWED BY

[Signature] (For Kim Lockfield)  
[Signature]

DATE 11/18/92  
DATE 11/19/92

DEC 09 1992



FORM A-12

SHEET 1 OF 1INSPECTION DATE 11-18-92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—

✓

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 44,332 GAL TTD

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_

## 4. REMARKS \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

INSPECTOR Kim W. LaddREVIEWED BY Jonathan BranelesDATE 11-18-92DATE 12/9/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 11/19/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—

✓

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 48,000 GAL TTD.

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

*J. Brueckl*  
*Jonathan Brueckl*

DATE

DATE

11/19/92  
 12/30/92

RECEIVED  
JEB


INSPECTION DATE 11.20.92

## 1. VERIFICATION INSPECTION

N/A

- ✓

- 



- \_\_\_\_\_

• QUANTITY 53,522 GAL TID



ACTION TAKEN \_\_\_\_\_

4. REMARKS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Lsm W. Felt  
REVIEWED BY Jonathan Brandes

DATE 11-20-92  
DATE 12/9/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 11/23/92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 56,500 GAL (TTD)

— — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

REVIEWED BY

*[Signature]*  
*Jonathan Brando*

DATE

DATE

11/23/92  
12/30/92

NOV 30 1992



FORM A  
SHEET 1 OF 1  
REVISION DATE 11/24/92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INFORMATION

1.1. OPERATIONAL LEVELS  
LEVELS MONITORED AND  
THEIR CORRESPONDING  
DISCHARGE FLOW RATES

OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

2. QUANTITY OF LIQUID FRACTION TREATED

QUANTITY 10,000 GALLONS

3. VAPOR CONTROL

ACTION TAKEN

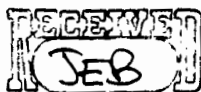
REMARKS

INSPECTOR  
REVIEWED BY *Jonathan Brakes*

11/30/92



DEC 30 1992



FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 12/2/92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒ ☐ ☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒ ☐ ☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒ ☐ ☒

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐ ☐ ☐

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 70,348 GALL (TTO)

☐ ☐ ☐

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 12/2/92  
DATE 12/30/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 12/3/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☒

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 80811 GAL (TTD)

☐☐☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

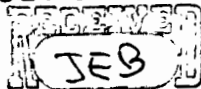
J. Brueckl  
Jonathan Brueckl

DATE

DATE

12/3/92  
12/3/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 12/4/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☒

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 91,275

☐☐☐

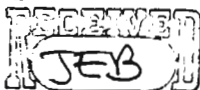
## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR  
REVIEWED BY  
Matthew BrueckelDATE  
DATE12/4/92  
12/30/92

DEC 30 1992

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 12/5/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☒

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 101,738 GAL (TTD)

☐☐☐

## 3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

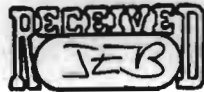
J. Buechle  
Nathan Brandes

DATE

DATE

12/5/9212/30/92

DEC 09 1992



FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 12/6/92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

✓

2. QUANTITY OF LIQUID FRACTION TREATED

201 GAL TTD

3. VAPOR CONTROL

ACTION TAKEN: NO VAPORS

4. REMARKS

INSPECTOR  
REVIEWED BY

John M. Bruch  
Jonathan Bruch

DATE 12/6/92  
DATE 12/6/92

DEC 16 1992  
RECEIVED  
JEB

FORM A-12

SHEET 1 OF 1

INSPECTION DATE 12/15/92

HEAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT

REJECT

N.A.

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 124,927 GAL (TID)

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED

4. REMARKS

CONTINUE TO TREAT EFFLUENT  
EFFLUENT ON A 24 HOUR BASIS

INSPECTOR

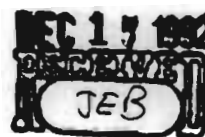
REVIEWED BY

Jonathan Brander

DATE

DATE

12/15/92  
12/23/92



## TREAT SLUDGE LIQUID FRACTION

 FORM AND  
 SHEET 1 OF 1  
 INSPECTION DATE 12/16/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS



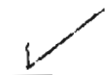
- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE



SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS



- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE



## 2. QUANTITY OF LIQUID FRACTION TREATED

 QUANTITY 137,652 (TOD)

## 3. VAPOR CONTROL

 ACTION TAKEN NO VAPORS DETECTED.

## 4. REMARKS

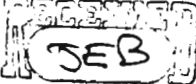
FILTRATE TREATMENT CONTINUED ON 24 HOUR BASIS.

 INSPECTOR  
 REVIEWED BY

J. Brumfield  
Jonathan Brumfield

 DATE 12/16/92  
 DATE 12/23/92

DEC 30 1992



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 12/17/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☒

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 150,378 GAL (TTD)

☐☐☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

INSPECTOR

REVIEWED BY

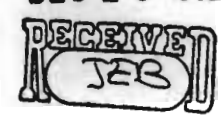
DATE

DATE

12/17/92  
12/30/92



DEC 18 1992



FORM A-12  
SHEET 1 OF 1  
INSPECTOR

12/23/92

HEAVY SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

• LIQUID FRACTION TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WILLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓

• OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

✓

• LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

✓

2. QUANTITY OF LIQUID FRACTION TREATED

• QUANTITY 163,103 (TOD)

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED

4. REMARKS

INSPECTOR [Signature]  
REVIEWED BY Jonathan Bavelas

DATE 12/15/92  
DATE 12/23/92

DEC 30 1992



P. 13

FORM A-12

SHEET 1 OF 1

INSPECTION DATE 12/28/92

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—

—

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 172,103 (TTD)

✓

—

—

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED

4. REMARKS

9000 GAL. TREATED OVERNIGHT.

INSPECTOR

REVIEWED BY

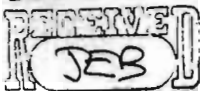
*J. Bruehl*  
*Jonathan Bruehl*

DATE

DATE

12/28/92  
12/30/92

DEC 30 1992



## TREAT SLUDGE LIQUID FRACTION

 FORM A-12  
 SHEET 1 OF 1  
 INSPECTION DATE 12/29/92

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒ ☐ ☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒ ☐ ☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒ ☐ ☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐ ☐ ☐

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 175,829 (TTD)

☒ ☐ ☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK #2  
3,000 GAL)

Post-It™ brand fax transmittal memo 7671

# of pages 2

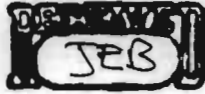
To	From
<u>JOHN BRANDES</u>	<u>JOE BRUECKL</u>
Co.	Co.
	<u>SEVENSON</u>
Dept.	Phone #
Fax #	Fax #
<u>593-7303</u>	<u>593-3348</u>

INSPECTOR

REVIEWED BY

DATE 12/29/92DATE 12/30/92

JAN 04 1993

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 12/30/92

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒ ☐ ☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒ ☐ ☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒ ☐ ☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐ ☐ ☐

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 180,000 (TOD)

☒ ☐ ☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK #2  
31,000 GAL

INSPECTOR

REVIEWED BY

[Signature]  
Jonathan Branks

DATE

DATE

12/30/92  
1/4/93

JAN 07 1993



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/4/93

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

☒☐☐

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

☒☐☐

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

☒☐☐

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

☐☐☐

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 188,554 GAL (TTO)

☒☐☐

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK #1  
31,000 GAL.)

INSPECTOR

REVIEWED BY

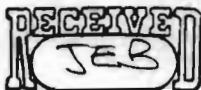
J. Brueckl  
Jonathan Brueckl

DATE

DATE

1/4/93  
1/7/93

JAN 07 1993



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/5/93

## TREAT SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—

—

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY (195,624 GAL TTD)

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK #1 (31,000 GAL)

INSPECTOR

REVIEWED BY

J. Brueckl  
Jonathan Brueckl

DATE

DATE

1/5/93

1/7/93

JAN 07 1993

F. 51



## TREAT SLUDGE LIQUID FRACTION

FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/6/93

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

—

—

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—

—

## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY (205,522 GAL TTD)

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN

NO VAPORS

## 4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK #1 (3,000 GAL)

INSPECTOR

REVIEWED BY

*J. Branch*  
*Jonathan Branch*

DATE

DATE

1/6/93  
1/7/93

JAN 11 1993  
RECEIVED  
SEB

FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 1/8/93

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — ✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY (219,000 GAL TTD)

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK # 1 (3,000 GAL)

INSPECTOR

REVIEWED BY

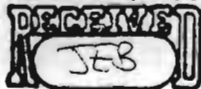
[Signature]  
Jonathan Brando

DATE 1/8/93

DATE 1/13/93



JAN 13 1993



P. 02

TREAT SLUDGE LIQUID FRACTION

FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/11/93

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

✓

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY (218,000 GAL TTD)

✓

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

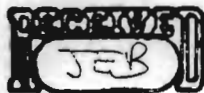
TREATED FILTRATE EFFLUENT DISCHARGED & STORED IN TANK #2 (31,000 GAL)

INSPECTOR  
REVIEWED BY

*J. Brandes*  
*Jonathan Brandes*

DATE 1/11/93  
DATE 14/Jan/93

JAN 13 1993



## TREAT SLUDGE LIQUID FRACTION

FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/12/93

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS



—

—

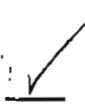
- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE



—

—

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS



—

—

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

—

—



## 2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 223,196 (TD)  
GAL



—

—

## 3. VAPOR CONTROL

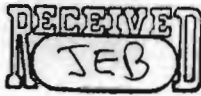
ACTION TAKEN — NO VAPORS

## 4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK # 2 (3,000 GAL)

INSPECTOR J. BrancatoREVIEWED BY franklin BrancatoDATE 1/12/93DATE 12/Jan/93

JAN 14 1993



FORM A-12

SHEET 1 OF 1

INSPECTION DATE 1/13/93

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TREATED TO LEVELS IN COMPLIANCE WITH THE VILLAGE OF WELLSVILLE POTW DISCHARGE REQUIREMENTS

✓ — —

- OPERATION CONDUCTED IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES AND WITH MINIMUM SPILLAGE

✓ — —

SYSTEM EQUIPMENT FUNCTIONS WITHIN THE OPERATING PARAMETERS SPECIFIED IN THE CONTRACT DOCUMENTS

✓ — —

- LIQUID FRACTION LOADED INTO TANKER TRAILERS WITH MINIMUM SPILLAGE

— — —

2. QUANTITY OF LIQUID FRACTION TREATED

- QUANTITY 233,841 GAL (TTD)

✓ — —

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

TREATED FILTRATE EFFLUENT  
DISCHARGED & STORED IN TANK # 2 (210000 GAL)

INSPECTOR

REVIEWED BY

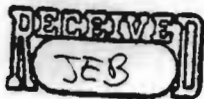
[Signature]  
Jonathan Brannels

DATE

DATE

1/13/93  
15 Jan 93

MAR 9 1993



FORM A-12  
SHEET 1 OF 1  
INSPECTION DATE 1-14-93

TREAT SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION:

ACCEPT REJECT N/A

LIQUID FRACTION TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

☒ ☐ ☐

OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

☒ ☐ ☐

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

☒ ☐ ☐

LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

☐ ☐ ☒

2. QUANTITY OF LIQUID FRACTION TREATED

QUANTITY 205,729 TPD

☒ ☐ ☐

3. VAPOR CONTROL

ACTION TAKEN \_\_\_\_\_  
\_\_\_\_\_

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Karl [Signature]  
REVIEWED BY Jonathan Braveros

DATE 1-14-93  
DATE Mar/9/93

RECEIVED  
JEB

SHEET 1 OF 1

### THAT SLUDGE LIQUID FRACTION

VERIFICATION INSPECTION

ACCEPTED MANUSCRIPT

LIQUID FRACTION TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

✓

OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

✓

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

—

LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

---

\_\_\_\_\_

## 2. QUANTITY OF LIQUID FRACTION TREATED

QUANTITY 231,180 GAL TID

10

### 3 VAPOR CONTROL

ACTION TAKEN

REMARKS

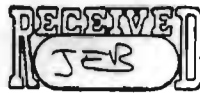
INSPECTOR

REVIEWED BY \_\_\_\_\_

DATE \_\_\_\_\_

DATE 9/11/92

Mar 7 1993



FORM A-2  
SHEET 1 OF 1  
INSPECTION DATE 2-2-93

HEAVY SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

LIQUID FRACTION TREATED TO  
LEVELS IN COMPLIANCE WITH  
THE VILLAGE OF WELLSVILLE POTW  
DISCHARGE REQUIREMENTS

☒ ☐ ☐

OPERATION CONDUCTED IN  
ACCORDANCE WITH STANDARD  
INDUSTRY PRACTICES AND WITH  
MINIMUM SPILLAGE

☒ ☐ ☐

SYSTEM EQUIPMENT FUNCTIONS  
WITHIN THE OPERATING  
PARAMETERS SPECIFIED IN THE  
CONTRACT DOCUMENTS

☒ ☐ ☐

LIQUID FRACTION LOADED INTO  
TANKER TRAILERS WITH MINIMUM  
SPILLAGE

☐ ☐ ☒

2. QUANTITY OF LIQUID FRACTION TREATED

QUANTITY 235,422 TTD

☒ ☐ ☐

3. VAPOR CONTROL

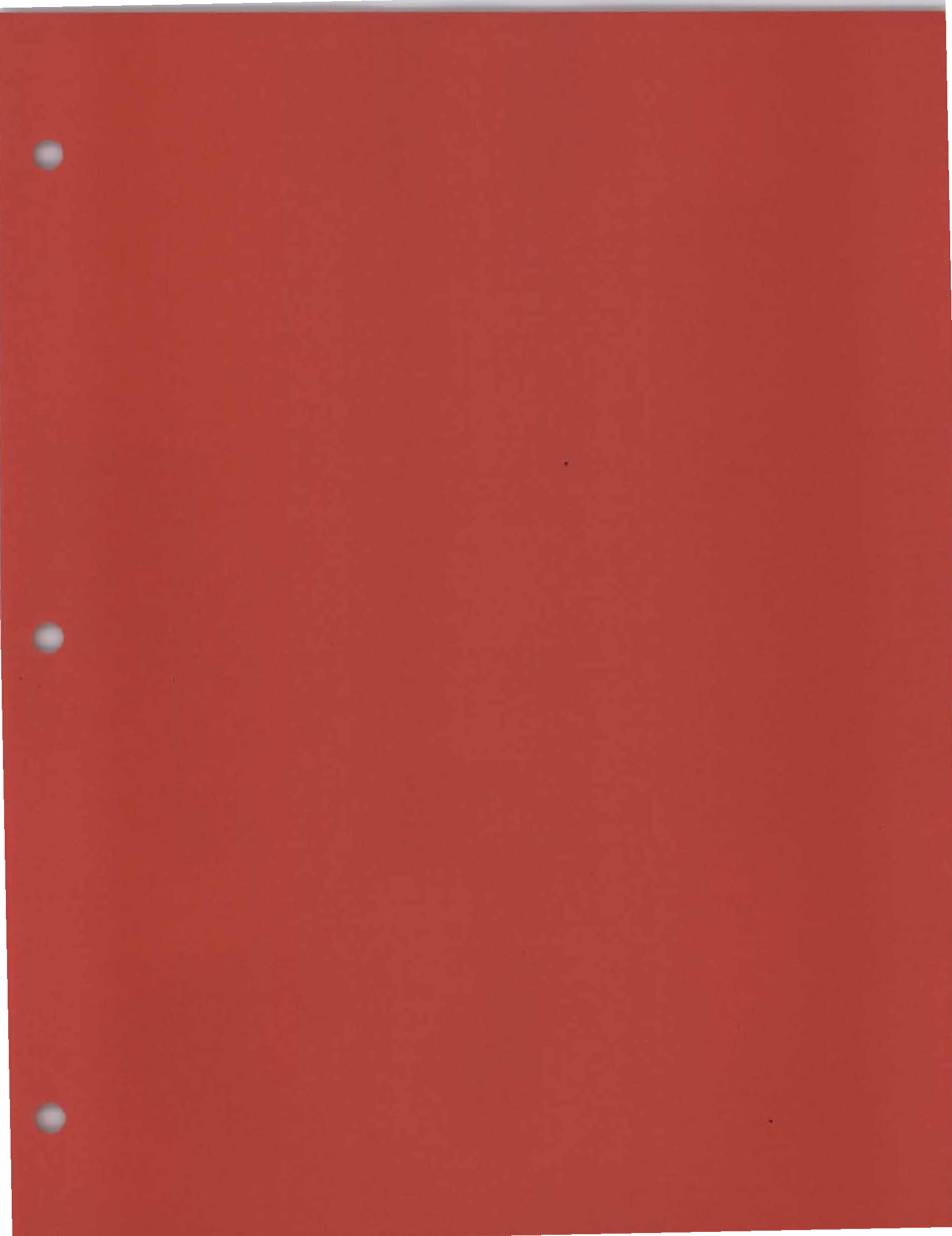
ACTION TAKEN \_\_\_\_\_  
\_\_\_\_\_

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR Kim W. Lipp  
REVIEWED BY Anthony R. Jones

DATE 2-2-93  
DATE 9/Mar/93

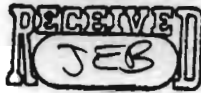


**FORM A-13**

**DISPOSAL OF SLUDGE LIQUID FRACTION**



NOV 30 1992



SHEET 1 OF 13  
INSPECTION DATE 11/25/92

DISPOSAL OF SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

• LIQUID FRACTION TRANSPORTED TO  
POTW BY LICENSED CARRIER

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ✓

• LIQUID FRACTION RELEASED TO  
POTW IN CONTROLLED MANNER

\_\_\_\_\_ ✓ \_\_\_\_\_

2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

• QUANTITY 8,276 GAL TTD

\_\_\_\_\_ ✓ \_\_\_\_\_

3. VAPOR CONTROL

ACTION TAKEN: \_\_\_\_\_

• REMARKS ALL ANALYTICAL RESULTS MEET  
PCPD DISCHARGE REQUIREMENTS

INSPECTOR

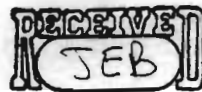
REVIEWED BY

[Signature]  
Jonathan Breveler

DATE 11/25/92

DATE 11/25/92

DEC 02 1992



FORM AND  
SHEET 1 OF 1  
INSPECTION DATE 12/1/92

DISPOSAL OF SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT \_\_\_\_\_ REJECT \_\_\_\_\_ N/A \_\_\_\_\_

- LIQUID FRACTION TRANSPORTED TO  
POTW BY LICENSED CARRIER

\_\_\_\_\_ ✓

- LIQUID FRACTION RELEASED TO  
POTW IN CONTROLLED MANNER

✓ \_\_\_\_\_

2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 25,451 GAL  
33,127 GALL (TTD)

✓ \_\_\_\_\_

3. VAPOR CONTROL

ACTION TAKEN NONE OBSERVED DURING MONITORING  
AT TIME OF DISCHARGE

4. REMARKS ANALYTICAL RESULTS SHOW MATERIAL  
TO MEET EPCRA STANDARDS FOR DIS-  
CHARGE. RESULTS SUBMITTED TO FACILITY  
PRIOR TO DISCHARGE. (POTW REPRESENTATIVE  
PRESENT DURING DISCHARGE, PLEASED WITH OPERATIONS.)

INSPECTOR [Signature]  
REVIEWED BY Jonathan Bravels

DATE 12/1/92  
DATE 12/2/92



FORM A-13  
SHEET 1 OF 1  
INSPECTION DATE 12/6/92

DISPOSAL OF SLUDGE LIQUID FRACTION

1. VERIFICATION ON INSPECTION

ACCEPT REJECT N/A

2. LIQUID FRACTION TRANSPORTED TO  
POTW BY LICENSED CARRIER

\_\_\_\_ \_ ☒

LIQUID FRACTION RELEASED TO  
POTW IN CONTROLLED MANNER

☒ \_\_\_\_ \_

3. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

QUANTITY 25,451 GAL (12/4/92)  
(59,178 GAL TTD)

☒ \_\_\_\_ \_

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS OBSERVED OR  
RECORDED DURING DISCHARGE

4. REMARKS

ANALYTICAL SUBMITTED TO  
POTW PRIOR TO DISCHARGE (VILLAGE  
REP. PHIL SWARTWOUT ON SITE DURING  
DISCHARGE. PLEASED WITH OPERATIONS  
& DISCHARGE RATE.)

INSPECTOR

REVIEWED BY

*John M. Brundage*  
*John M. Brundage*

DATE 12/6/92  
DATE 12/9/92



FORM 4-3

SHEET 1 OF 1

INSPECTION DATE 12/14/92

## DISPOSAL OF SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER

—	—	✓
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- LIQUID FRACTION RELEASED TO POTW IN CONTROLLED MANNER

✓	—	—
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## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 53,023 GAL (12/14/92) ✓  
(112,201 GAL TTD)

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## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED

## 4. REMARKS

DISPOSED OF BOTH TANK #1 & #2  
TREATED FILTRATE TODAY. ANALYTICAL  
SUBMITTED TO POTW. REP. PHIL SWARTZOUT  
WAS PRESENT DURING DISCHARGE OPERATION.

INSPECTOR  
REVIEWED BY

John M. Bruchel  
Jonathan Bruchel

DATE 12/14/92  
DATE 12/22/92

DEC 28 1992



FORM A-13

SHEET 1 OF 1

INSPECTION DATE 12/23/92

## DISPOSAL OF SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER

\_\_\_

\_\_\_

\_\_\_ ✓

- LIQUID FRACTION RELEASED TO POTW IN CONTROLLED MANNER

\_\_\_ ✓

\_\_\_

\_\_\_

## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 25,451 GAL (12/23/92)  
(137,652 GAL TTP)

\_\_\_ ✓

\_\_\_

\_\_\_

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED

## 4. REMARKS

DISPOSED OF EFFLUENT FROM  
TANK #2 (TREATED FILTRATE EFFLUENT)  
ANALYTICAL SUBMITTED TO POTW & REP. PHIL  
SWARTHOUT WAS PRESENT DURING DISCHARGE  
OPERATIONS TO MONITOR FLOW RATES

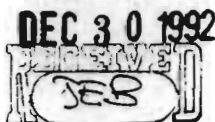
INSPECTOR

REVIEWED BY

*Jonathan Broules*  
*Jonathan Broules*

DATE 12/23/92

DATE 12/23/92



FORM A-13

SHEET 1 OF 1

INSPECTION DATE 12/29/92

## DISPOSAL OF SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER

—

—

✓

- LIQUID FRACTION RELEASED TO POTW IN CONTROLLED MANNER

✓

—

—

## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 2545/GAL. (12/29/92)  
(163,103 GAL TTD)

✓

—

—

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

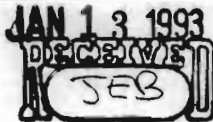
DISPOSED OF EFFLUENT FROM TANK #, (TREATED FILTRATE) ANALYTICAL SUBMITTED TO POTW & REP. PHIL. SWARTWOUT PRESENT TO MONITOR FLOWRATE DURING DISCHARGE

INSPECTOR

REVIEWED BY

DATE 12/29/92

DATE 12/30/92



## DISPOSAL OF SLUDGE LIQUID FRACTION

FORM A-13  
SHEET 1 OF 1  
INSPECTION DATE 1/11/93

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER
- LIQUID FRACTION RELEASED TO POTW IN CONTROLLED MANNER

—	—	✓
✓	—	—

## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 25,451 GAL 1/11/93  
188,554 GAL TTD

✓	—	—
---	---	---

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

DISPOSED OF EFFLUENT FROM  
TANK # 2 (3,500 GAL) TREATED FILTRATE CON-  
TASTED POTW REP PHIL SWARTHOUT BEFORE  
DISCHARGE. ANALYTICAL MET POTW  
CRITERIA FOR DISCHARGE.

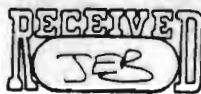
INSPECTOR

REVIEWED BY

[Signature]  
Jonathan Saunders

DATE 1/11/93  
DATE 13 Jan 93

JAN 15 1993



F. 01

DISPOSAL OF SLUDGE LIQUOR - ACTION

FORM A-13

SHEET 1 OF 1

INSPECTION DATE 1/14/93

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER
- LIQUID FRACTION RE-USED TO POTW IN CONTROLLED MANNER

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---

✓

✓

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## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 25,451 GAL 1/14/93  
(214,005 GAL TTD)

✓

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---

## 3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 4. REMARKS

DISPOSED OF FILTRATE EFFLUENT  
FROM TANK #1 (31,000 GAL). POTW REP.  
PHU STAYED ON SITE TO MONITOR  
DISCHARGE RATE & PICK UP ANALYTICAL  
RESULTS.

INSPECTOR

REVIEWED BY

*[Signature]*  
*Jonathan Brandes*

DATE

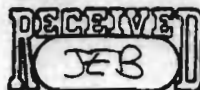
DATE

1/14/93  
1/16/93



JAN 22 1993

F. 57



FORM A-13

SHEET 1 OF 2

INSPECTION DATE 1/22/93

## DISPOSAL OF SLUDGE LIQUID FRACTION

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- LIQUID FRACTION TRANSPORTED TO POTW BY LICENSED CARRIER

—

—

✓

- LIQUID FRACTION RELEASED TO POTW IN CONTROLLED MANNER

✓

—

—

## 2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

- QUANTITY 25.45 / GAL

✓

—

—

## 3. VAPOR CONTROL

(4 TO 233 EA / GAL)

ACTION TAKEN NO VAPORS

## 4. REMARKS

DISCHARGED TREATED FILTRATE FROM TANK #2 (21,000 GAL) TO POTW VIA MANHOLE WEST OF WEBSITE (POTW PER PHIL SWARTZOUT ON SITE TO MONITOR DISCHARGE).

INSPECTOR

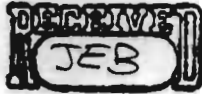
REVIEWED BY

*[Signature]*  
Jonathan Brancos

DATE 1/22/93

DATE 1/23/Jan/93

MAR 1 9 1993



FORM A-13  
SHEET 1 OF 1  
INSPECTION DATE 2-2-93

DISPOSAL OF SLUDGE LIQUID FRACTION

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

LIQUID FRACTION TRANSPORTED TO  
POTW BY LICENSED CARRIER

\_\_\_\_\_  
\_\_\_\_\_  
✓

LIQUID FRACTION RELEASED TO  
POTW IN CONTROLLED MANNER

✓ \_\_\_\_\_

2. QUANTITY OF LIQUID FRACTION RELEASED TO POTW

QUANTITY 235,422 TOTAL

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. VAPOR CONTROL

ACTION TAKEN NO VAPORS

4. REMARKS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR

REVIEWED BY

Kenn W. Luff  
Jonathan Brantley

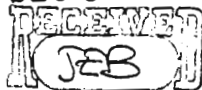
DATE 2-2-93  
DATE 8/Mar/93



**FORM A-14**

**OFF-SITE DISPOSAL OF SLUDGE**

DEC 30 1992



FORM A-14

SHEET 1 OF 1

INSPECTION DATE 12/28/92

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓

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✓

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✓

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✓

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 87.6 TONS

✓

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—

## 3. REMARKS

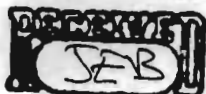
6 ROLL-OFFS SENT TO LWD  
IN CALVERT CITY KENTUCKY FOR INCINERATION  
VIA BUFFALO FUEL CORP. (TRANSFER)

 INSPECTOR  
 REVIEWED BY



 DATE 12/28/92  
 DATE 12/30/92

JAN 04 1993



FORM A-14

SHEET 1 OF 1

INSPECTION DATE 12/30/92

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 75.23 TONS  
162.83 TONS (TTD)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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## 3. REMARKS

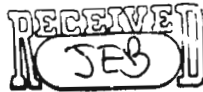
5 ROLL-OFFS SENT TO LWD  
IN CALVERT CITY, KENTUCKY FOR  
INCINERATION VIA BUFFALO FUEL  
CORPORATION

INSPECTOR  
REVIEWED BY

*[Signature]*  
*[Signature]*

DATE 12/30/92  
DATE 1/4/93

JAN 07 1993



FORM A-14

SHEET 1 OF 1INSPECTION DATE 1/4/93

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 40.35 TONS  
(203.18 TTD)

<u>✓</u>	<u>—</u>	<u>—</u>
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## 3. REMARKS

3 ROLL-OFFS SENT TO LWD  
IN CALVERT CITY, KENTUCKY FOR  
INCINERATION VIA BUFFALO FUEL CORP.

INSPECTOR

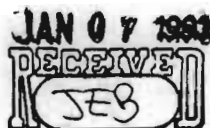
REVIEWED BY

[Signature]  
Jonathan Brandes

DATE

DATE

1/4/93  
1/7/93



FORM A-14  
SHEET 1 OF 1  
INSPECTION DATE 1/5/93

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

	ACCEPT	REJECT	N/A
- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER	<u>✓</u>	<u>   </u>	<u>   </u>
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS	<u>✓</u>	<u>   </u>	<u>   </u>
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED	<u>✓</u>	<u>   </u>	<u>   </u>
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS	<u>   </u>	<u>   </u>	<u>✓</u>

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 46.68 TONS  
(249.86 TTD)

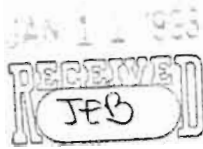
## 3. REMARKS

3 ROLL-OFFS SENT TO LWD  
IN CALVERT CITY, KENTUCKY FOR  
INCINERATION VIA BUFFALO FUEL CORP.

INSPECTOR [Signature]  
REVIEWED BY Jonathan Brandes

DATE 1/5/93  
DATE 1/7/93





FORM A-14  
SHEET 1 OF 1  
INSPECTION DATE 1/8/93

OFF-SITE DISPOSAL OF SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

ACCEPT	REJECT	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 11.19 TONS  
(211.35 TTD)

ACCEPT	REJECT	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. REMARKS

1 POLL-OFFS SENT TO LWD  
IN CLEVELAND, KENTUCKY FOR INCINERATION  
VIA BREXID FUEL CORP.

INSPECTOR [Signature]  
REVIEWED BY [Signature]

DATE 1/8/93  
DATE 1/8/93

JAN 15 1993  
RECEIVED  
DES

FORM A-14  
SHEET 1 OF 1  
INSPECTION DATE 1/14/93

OFF-SITE DISPOSAL OF SLUDGE

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 20.82 TONS.  
(322.17 TTD)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------

3. REMARKS

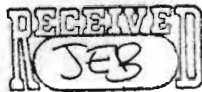
2 ROLL-OFFS SENT TO LMD  
IN CALVERT CITY, KENTUCKY FOR  
INCINERATION VIA BUFFALO FUEL CORP.  
TRANSPORTER.

INSPECTOR  
REVIEWED BY

[Signature]  
[Signature]

DATE 1/14/93  
DATE 16 Jan 93

MAR 10 1993



FORM A-14

SHEET 1 OF 1INSPECTION DATE 3-3-93

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER

✓

—

—

- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS

✓

—

—

- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED

✓

—

—

- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

—

—

✓

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 91.18

✓

—

—

3. REMARKS (6) ROLL OFFS TO LIND - INCINERATION -

ROLL OFF

TONS.

93023 206.25 15.34

93024 150.25 15.25

93025 141.25 14.64

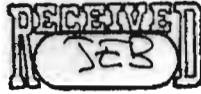
93026 135.25 16.28

93027 200.25 14.49

93028 198.25 15.18

91.18 TONS.INSPECTOR K. J. [Signature]REVIEWED BY [Signature]DATE 3-3-93DATE 10/11/93

MAR 10 1993


 FORM A-14  
 SHEET 1 OF 1  
 INSPECTION DATE 3.5.93

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 40.26 T

<u>✓</u>	<u>—</u>	<u>—</u>
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3. REMARKS (3) ROLL OFFS TO CIVIL


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ROLL OFF

TONS

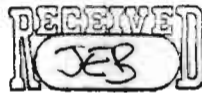
93029	151.25	13.31
93030	527.25	12.01
93031	528.25	14.94
		<u>40.26</u>

 INSPECTOR [Signature]  
 REVIEWED BY [Signature]

Bravdes

 DATE 3.5.93  
 DATE 10/Mar/93

MAR 10 1993



FORM A-14

SHEET 1 OF 1INSPECTION DATE 3-8-93

## OFF-SITE DISPOSAL OF SLUDGE

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- SLUDGE TRANSPORTED OFF-SITE BY LICENSED CARRIER
- WASTE PROFILE SHEETS AND WASTE MANIFESTS GENERATED ACCORDING TO CONTRACT DOCUMENTS
- PRIOR TO LEAVING SITE TRANSPORT TRUCKS ARE SECURED AND DECONTAMINATED
- SLUDGE DISPOSED OF IN AN APPROVED LANDFILL IN ACCORDANCE WITH CONTRACT DOCUMENTS

✓	—	—
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✓	—	—
---	---	---

✓	—	—
---	---	---

—	—	✓
---	---	---

## 2. QUANTITY OF SLUDGE DISPOSED

- QUANTITY 70.97 / 111.23 TTD.

✓	—	—
---	---	---

## 3. REMARKS

(S) ROLL OFFS TO CIVIL

ROLL OFF TNS.

93032	268.25	10.96
93033	210.25	16.10
93034	229.25	15.77
93035	184.25	12.59
93036	208.25	15.55

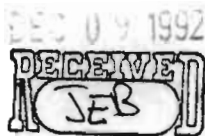
	70.97	
+	40.26	
	111.23	TTD

INSPECTOR K. J. Kelly  
REVIEWED BY Jonathan BranelesDATE 3-8-93  
DATE 10 Mar 93



**FORM A-15**

**DECONTAMINATE SEPARATOR**



FORM A-15  
SHEET 1 OF 1  
INSPECTION DATE 11-24-92

DECONTAMINATE SEPARATOR

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- ALL VISUAL SIGNS OF CONTAMINATION REMOVED FROM SEPARATOR
- CHIP SAMPLES COLLECTED PER THE SAMPLING AND ANALYSIS PLAN FOR SEPARATOR REMEDIATION
- DECONTAMINATION RESIDUALS TREATED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

<u>✓</u>	<u>—</u>	<u>—</u>
<u>✓</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>✓</u>

2. VAPOR CONTROL

ACTION TAKEN NO VAPORS

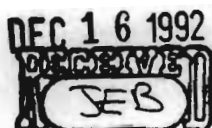
3. REMARKS (1) CHIP SAMPLE COLLECTED TODAY &  
SENT IN FOR ANALYSIS

INSPECTOR Kim W. Leffel

REVIEWED BY Jonathan Brundage

DATE 11-24-92  
DATE 12/9/92





FORM A-15

SHEET 1 OF 1

INSPECTION DATE 12/8/92

## DECONTAMINATE SEPARATOR

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- ALL VISUAL SIGNS OF CONTAMINATION REMOVED FROM SEPARATOR
- CHIP SAMPLES COLLECTED PER THE SAMPLING AND ANALYSIS PLAN FOR SEPARATOR REMEDIATION
- DECONTAMINATION RESIDUALS TREATED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

✓	---	---
✓	---	---
---	---	✓

## 2. VAPOR CONTROL

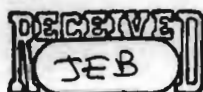
ACTION TAKEN NO VAPORS DETECTED @ TIME OF SAMPLING

3. REMARKS 1 CHIP SAMPLE COLLECTED TODAY (SCRS-002) FROM SOUTH END OF NORTH TRAIN @ HEAD WORKS OF TRAIN. SENT TO GENERAL TESTING FOR ANALYSIS

INSPECTOR  
REVIEWED BY

DATE 12/8/92  
DATE 12/23/92

DEC 16 1992



FORM A-15

SHEET 1 OF 1

INSPECTION DATE 12/14/92

## DECONTAMINATE SEPARATOR

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- ALL VISUAL SIGNS OF CONTAMINATION REMOVED FROM SEPARATOR
- CHIP SAMPLES COLLECTED PER THE SAMPLING AND ANALYSIS PLAN FOR SEPARATOR REMEDIATION
- DECONTAMINATION RESIDUALS TREATED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

✓	—	—
✓	—	—
—	—	✓

## 2. VAPOR CONTROL

ACTION TAKEN NO VAPORS DETECTED @  
TIME OF SAMPLING

3. REMARKS 1 CHIP SAMPLE COLLECTED TODAY (SCRS-003)  
FROM WEST WALL OF SOUTH TRAIN @ HEAD  
WORKS OF TRAIN. SENT TO GENERAL  
TESTING FOR ANALYSIS.

INSPECTOR

REVIEWED BY

*[Signature]*  
*[Signature]*

DATE 12/14/92

DATE 12/23/92

JAN 04 1993



FORM A-15

SHEET 1 OF 1INSPECTION DATE 12/29/92

## DECONTAMINATE SEPARATOR

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- ALL VISUAL SIGNS OF CONTAMINATION REMOVED FROM SEPARATOR
- CHIP SAMPLES COLLECTED PER THE SAMPLING AND ANALYSIS PLAN FOR SEPARATOR REMEDIATION
- DECONTAMINATION RESIDUALS TREATED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

✓

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✓

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✓

## 2. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 3. REMARKS

1 CHIP SAMPLE COLLECTED TODAY  
(SCRS-001) FROM SOUTH WALL OF EAST  
CELL OF MIDDLE TRAIN @ HEAD WORKS.  
TAKEN AFTER CELL WAS RESANDBLASTED  
IN VICINITY OF SAMPLE 001.

INSPECTOR

REVIEWED BY

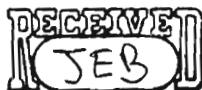
J. Brueckel  
Jonathan Brueckel

DATE

DATE

12/29/92  
1/4/93

JAN 07 1993



FORM A-15

SHEET 1 OF 1

INSPECTION DATE 1/5/93

# DECONTAMINATE SEPARATOR

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- ALL VISUAL SIGNS OF CONTAMINATION REMOVED FROM SEPARATOR
- CHIP SAMPLES COLLECTED PER THE SAMPLING AND ANALYSIS PLAN FOR SEPARATOR REMEDIATION
- DECONTAMINATION RESIDUALS TREATED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

✓

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✓

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✓

## 2. VAPOR CONTROL

ACTION TAKEN NO VAPORS

## 3. REMARKS

1 CHIP SAMPLE COLLECTED TODAY (SRSCP-005) FROM SOUTH WALL OF WEST CELL OF NORTH TRAIN @ HEAD WORKS. TAKEN AFTER CELL WAS RESANDBLASTED IN VICINITY OF SAMPLE SRSCP-002.

INSPECTOR  
REVIEWED BY

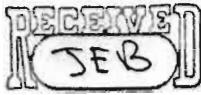
J. Bruehl  
Jonathan Brandes

DATE 1/5/93  
DATE 1/7/93



**FORM A-16**

**INSTALL BOTTOM DRAINS**



FORM A-16

SHEET 1 OF 1INSPECTION DATE 1/13/93

## INSTALL BOTTOM DRAINS

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- INSPECT FLOOR OF SEPARATOR  
TO DETERMINE INTEGRITY

✓——

- INSTALL DRAINAGE HOLES AS  
REQUIRED

✓——

## 2. REMARKS

BEGAN INSTALLATION OF DRAINAGE  
HOLES IN NORTH TANK OF SEPARATOR  
AFTER RIGGERS WAS FINISHED IN CELLS

INSPECTOR

REVIEWED BY

[Signature]  
Jonathan Brandes

DATE

DATE

1/13/93  
Jan/13/93

JAN 15 1993

FORM A-16  
SHEET 1 OF 1  
INSPECTION DATE 1/11/93

## INSTALL BOTTOM DRAINS

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- INSPECT FLOOR OF SEPARATOR TO DETERMINE INTEGRITY
- INSTALL DRAINAGE HOLES AS REQUIRED

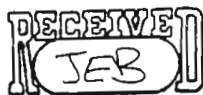
✓	—	—
✓	—	—

2. REMARKS CONTINUED INSTALLATION OF  
DRAIN HOLES IN MIDDLE TRAIN OF  
SEPARATOR AFTER PLACEMENT OF  
RUBBLE.

INSPECTOR  
REVIEWED BY  
Jonathan BrancatoDATE 1/14/93  
DATE 16 Jan 93



JAN 15 1993


 FORM A-16  
 SHEET 1 OF 1  
 INSPECTION DATE 1/15/93

## INSTALL BOTTOM DRAINS

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- INSPECT FLOOR OF SEPARATOR TO DETERMINE INTEGRITY
- INSTALL DRAINAGE HOLES AS REQUIRED

✓	—	—
✓	—	—

## 2. REMARKS

CONTINUED & COMPLETED INSTALLATION  
 OF DRAIN HOLES IN SOUTH TRAIN OF  
 SEPARATOR AFTER PLACEMENT OF  
 RUBBLE.

INSPECTOR

REVIEWED BY

*J. Brueckl*  
*Jonathan Brandes*

DATE

DATE

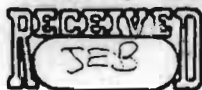
1/15/93  
 1/19/93



**FORM A-17**

**DEMOLITION AND INSTALLATION  
OF APPROPRIATE COVER**

JAN 13 1993


 FORM A-17  
 SHEET 1 OF 1  
 INSPECTION DATE 1/11/93

 DEMOLITION AND INSTALLATION OF  
 APPROPRIATE COVER

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AREAS IMMEDIATELY OUTSIDE SEPARATOR WALLS AND PUMPHOUSE FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR, PUMPHOUSE (BUILDING #1), AND SMALL BRICK BUILDING (BUILDING #2) IN ACCORDANCE WITH CONTRACT DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS OF SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS PIT RUN GRAVEL FROM LOCAL SOURCE
- AREA AROUND SEPARATOR BACKFILLED, AND GRAVEL IS GRADED TO FORM COVER
- COVER SLOPED TO DRAIN AS SPECIFIED IN CONTRACT DOCUMENTS

—	—	✓
✓	—	—
✓	—	—
—	—	✓
—	—	✓
—	—	✓

## 2. DUST CONTROL

 ACTION TAKEN MISTING WITH WATER DURING DEMO.

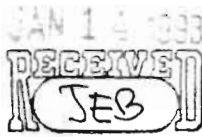
## 3. REMARKS

PUMPHOUSE #2 DEMOLISHED & BROKEN UP & SIZED DOWN BEFORE PLACED IN SEPARATOR CELLS.

 INSPECTOR  
 REVIEWED BY

J. Brueck  
Jonathan Brandes

 DATE 1/11/93  
 DATE Jan 14/93



FORM A-17  
SHEET 1 OF 1  
INSPECTION DATE 1/13/93

DEMOLITION AND INSTALLATION OF  
APPROPRIATE COVER

1. VERIFICATION INSPECTION	ACCEPT	REJECT	N/A
- AREAS IMMEDIATELY OUTSIDE SEPARATOR WALLS AND PUMPHOUSE FOUNDATION EXCAVATED	—	—	—
- DEMOLITION OF SEPARATOR, PUMPHOUSE (BUILDING #1), AND SMALL BRICK BUILDING (BUILDING #2) IN ACCORDANCE WITH CONTRACT DOCUMENTS	<u>1</u>	—	—
- RUBBLE PLACED IN COMPARTMENTS OF SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS	<u>1</u>	—	—
- ANY ADDITIONAL FILL REQUIRED IS PIT RUN GRAVEL FROM LOCAL SOURCE	<u>1</u>	—	—
- AREA AROUND SEPARATOR BACKFILLED, AND GRAVEL IS GRADED TO FORM COVER	—	—	<u>1</u>
- COVER SLOPED TO DRAIN AS SPECIFIED IN CONTRACT DOCUMENTS	—	—	<u>1</u>

2. DUST CONTROL

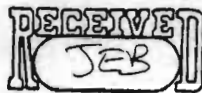
ACTION TAKEN NO DUST

3. REMARKS BEGAN PLACEMENT OF RUBBLE  
IN CELLS OF SEPARATOR & BACKFILLING  
WITH GRAVEL FROM LOCAL PIT

INSPECTOR J. J. Bruch  
REVIEWED BY Jonathan Brander

DATE 1/13/93  
DATE 13/Jan/93

JAN 15 1993



FORM A-17  
SHEET 1 OF 1  
INSPECTION DATE 1/14/93

DEMOLITION AND INSTALLATION OF  
APPROPRIATE COVER

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AREAS IMMEDIATELY OUTSIDE  
SEPARATOR WALLS AND PUMPHOUSE  
FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR,  
PUMPHOUSE (BUILDING #1), AND  
SMALL BRICK BUILDING (BUILDING  
#2) IN ACCORDANCE WITH CONTRACT  
DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS  
OF SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS  
PIT RUN GRAVEL FROM LOCAL  
SOURCE
- AREA AROUND SEPARATOR BACKFILLED,  
AND GRAVEL IS GRADED TO FORM  
COVER
- COVER SLOPED TO DRAIN AS  
SPECIFIED IN CONTRACT  
DOCUMENTS

<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>/</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>/</u>

2. DUST CONTROL

ACTION TAKEN NO DUST PRESENT

3. REMARKS

CONTINUED DEMO WITH HCF RAM OF  
WALLS & FOUNDATIONS CONTINUED BACKFILLING  
CELLS WITH GRAVEL.

INSPECTOR

REVIEWED BY

[Signature]  
[Signature]

DATE 1/15/93

DATE 16 Jan 93

JAN 15 1993

DEMOLITION AND INSTALLATION OF  
APPROPRIATE COVER

FORM A-17

SHEET 1 OF 1

INSPECTION DATE 1/15/93

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AREAS IMMEDIATELY OUTSIDE  
SEPARATOR WALLS AND PUMPHOUSE  
FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR,  
PUMPHOUSE (BUILDING #1), AND  
SMALL BRICK BUILDING (BUILDING  
#2) IN ACCORDANCE WITH CONTRACT  
DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS  
OF SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS  
PIT RUN GRAVEL FROM LOCAL  
SOURCE
- AREA AROUND SEPARATOR BACKFILLED,  
AND GRAVEL IS GRADED TO FORM  
COVER
- COVER SLOPED TO DRAIN AS  
SPECIFIED IN CONTRACT  
DOCUMENTS

✓

✓

✓

✓

✓

✓

## 2. DUST CONTROL

ACTION TAKEN NO DUST PRESENT

## 3. REMARKS

CONTINUED & COMPLETED DEMO. OF  
WALLS & FOUNDATIONS WITH HOE RAM  
CONTINUED BACKFILLING SEPARATOR  
WITH GRAVEL.

INSPECTOR

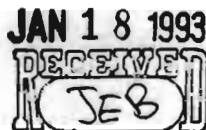
REVIEWED BY

*[Signature]*  
*[Signature]*

DATE

DATE

1/15/93  
 16/Jan/93



# DEMOLITION AND INSTALLATION OF APPROPRIATE COVER

FORM A-17

SHEET 1 OF 1INSPECTION DATE 1/16/93

## 1. VERIFICATION INSPECTION

ACCEPT

REJECT

N/A

- AREAS IMMEDIATELY OUTSIDE SEPARATOR WALLS AND PUMPHOUSE FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR, PUMPHOUSE (BUILDING #1), AND SMALL BRICK BUILDING (BUILDING #2) IN ACCORDANCE WITH CONTRACT DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS OF SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS PIT RUN GRAVEL FROM LOCAL SOURCE
- AREA AROUND SEPARATOR BACKFILLED, AND GRAVEL IS GRADED TO FORM COVER
- COVER SLOPED TO DRAIN AS SPECIFIED IN CONTRACT DOCUMENTS

✓

✓

✓

✓

✓

✓

## 2. DUST CONTROL

ACTION TAKEN NO DUST PRESENT

## 3. REMARKS

CONTINUED BACKFILLING SEPARATOR  
(338 TONS 3" GRAVEL) FROM SKUBA PIT.  
COMPLETED BACKFILLING OF NORTH  
TRAIN & PUMPHOUSE AREA.

INSPECTOR

REVIEWED BY

J. P. [Signature]  
Jonathan Braneles

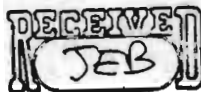
DATE

DATE

1/16/93  
19 Jan 93



JAN 18 1993


 FORM A-17  
 SHEET 1 OF 1  
 INSPECTION DATE 1/18/93

 DEMOLITION AND INSTALLATION OF  
 APPROPRIATE COVER

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AREAS IMMEDIATELY OUTSIDE  
SEPARATOR WALLS AND PUMPHOUSE  
FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR,  
PUMPHOUSE (BUILDING #1), AND  
BRICK BUILDING (BUILDING  
#2) ACCORDANCE WITH CONTRACT  
DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS  
OF SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS  
PIT RUN GRAVEL FROM LOCAL  
SOURCE
- AREA AROUND SEPARATOR BACKFILLED,  
AND GRAVEL IS GRADED TO FORM  
COVER
- COVER SLOPED TO DRAIN AS  
SPECIFIED IN CONTRACT  
DOCUMENTS

✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—
✓	—	—

## 2. DUST CONTROL

 ACTION TAKEN NO DUST PRESENT

 3. REMARKS CONTINUED BACKFILLING SEPARATOR  
3' (6") GRAVEL FROM SKUBA PIT.  
CONTINUED BACKFILLING CELLS IN SOUTH  
& MIDDLE TRAINS.

INSPECTOR

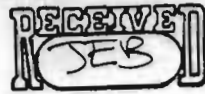
REVIEWED BY

DATE

DATE

1/18/93  
19 Jan 93

JAN 20 1993



FORM A-17  
SHEET 1 OF 1  
INSPECTION DATE 1/19/93

DEMOLITION AND INSTALLATION OF  
APPROPRIATE COVER

1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

- AREAS IMMEDIATELY OUTSIDE  
SEPARATOR WALLS AND PUMPHOUSE  
FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR,  
PUMPHOUSE (BUILDING #1), AND  
SMALL BRICK BUILDING (BUILDING  
#2) IN ACCORDANCE WITH CONTRACT  
DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS  
OF SEPARATOR IN ACCORDANCE WITH  
CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS  
PIT RUN GRAVEL FROM LOCAL  
SOURCE
- AREA AROUND SEPARATOR BACKFILLED,  
AND GRAVEL IS GRADED TO FORM  
COVER
- COVER SLOPED TO DRAIN AS  
SPECIFIED IN CONTRACT  
DOCUMENTS

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<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. DUST CONTROL

ACTION TAKEN NO DUST PRESENT

3. REMARKS

CONTINUED BACKFILLING SEPARATOR  
3" (-) GRAVEL FROM SKUBA PIT. (112 TONS)  
CONTINUED BACKFILLING CELLS IN SOUTH  
& MIDDLE TRAINS.

INSPECTOR

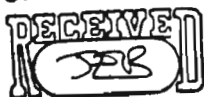
REVIEWED BY

*[Signature]*  
*[Signature]*

DATE 1/19/93

DATE 20 Jan 93

**JAN 21 1993**



FORM A-17

SHEET 1 OF 1

INSPECTION DATE 1/20/93

### DEMOLITION AND INSTALLATION OF APPROPRIATE COVER

## 1. VERIFICATION INSPECTION

ACCEPT

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

24.3

- AREAS IMMEDIATELY OUTSIDE SEPARATOR WALLS AND PUMPHOUSE FOUNDATION EXCAVATED
- DEMOLITION OF SEPARATOR, PUMPHOUSE (BUILDING #1), AND SMALL BRICK BUILDING (BUILDING #2) IN ACCORDANCE WITH CONTRACT DOCUMENTS
- RUBBLE PLACED IN COMPARTMENTS OF SEPARATOR IN ACCORDANCE WITH CONTRACT DOCUMENTS
- ANY ADDITIONAL FILL REQUIRED IS PIT RUN GRAVEL FROM LOCAL SOURCE
- AREA AROUND SEPARATOR BACKFILLED AND GRAVEL IS GRADED TO FORM COVER
- COVER SLOPED TO DRAIN AS SPECIFIED IN CONTRACT DOCUMENTS

## 2. DUST CONTROL

ACTION TAKEN NO DUST DURING BACKFILLING  
OPERATIONS.

## 3. REMARKS

REMARKS CONTINUED & COMPLETED BACKFILLING  
OF SEPARATOR WITH 3" (MINUS) GRAVEL  
FROM SKUBA PIT

INSPECTOR

REVIEWED BY \_\_\_\_\_

DATE 1/20/92

DATE 21 Jan 83



**FORM A-18**

**DEMOBILIZATION/TOPSOIL,  
SEED AND MULCH**



DEMOBILIZATION TOPSOIL, SEED AND MULCH

FORM A-18

SHEET 1 OF 1

INSPECTION DATE 1/25/93

1. VERIFICATION INSPECTION

ACCEPT REJECT NA

- ALL EQUIPMENT AND TEMPORARY FACILITIES REMOVED FROM SITE
- TEMPORARY SECURITY FENCING REMOVED
- DISTURBED AREAS COVERED WITH TOPSOIL, SEEDED AND MULCHED, AND MAINTAINED UNTIL GROWTH ESTABLISHED
- SITE RESTORED TO ACCEPTABLE CONDITIONS

—	—	✓
✓	—	—
—	—	✓
—	—	✓

2. DUST CONTROL

ACTION TAKEN NO DUST

3. REMARKS

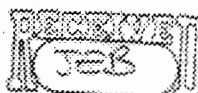
DEMOBILIZED ENGINEERS TRAILER & ALL CONNECTED UTILITIES.

INSPECTOR  
REVIEWED BY

*J. Bruch*  
*Jonathan Bruch*

DATE 1/25/93  
DATE 26 Jan 93

MAR 9 1993


 FORM A-18  
 SHEET 1 OF 1  
 INSPECTION DATE 2.26.93

## DEMOBILIZATION/TOPSOIL, SEED AND MULCH

## 1. VERIFICATION INSPECTION

ACCEPT REJECT N/A

 • ALL EQUIPMENT AND TEMPORARY  
 FACILITIES REMOVED FROM SITE

✓

 • TEMPORARY SECURITY FENCING  
 REMOVED

✓

 • DISTURBED AREAS COVERED WITH  
 TOPSOIL, SEEDED AND MULCHED,  
 AND MAINTAINED UNTIL GROWTH  
 ESTABLISHED

—

—

✓

 • SITE RESTORED TO ACCEPTABLE  
 CONDITIONS

✓

—

—

## 2. DUST CONTROL N/A

ACTION TAKEN

 3. REMARKS TRAILERS REMOVED - NO TOPSOIL OR  
 SEED INSTALLED PER ARCO DIRECTION

 INSPECTOR  
 REVIEWED BY

 DATE 2.26.93  
 DATE 3/mar/93