

**Tetra Tech EM Inc.**

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December 29, 2000

Mr. Thomas Alcamo
Work Assignment Manager (SR-6J)
Remedial Response Unit No. 1
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, IL 60604

**Subject: Field Oversight Summary for November 28 through December 8, 2000
Lemon Lane Landfill Site, Bloomington, Indiana
Contract No. 68-W7-0003, Work Assignment No. 044-RXBF-0529**

Dear Mr. Alcamo:

Tetra Tech EM Inc. (Tetra Tech) has prepared the enclosed field oversight summary to document its remedial action oversight activities at the above-referenced site from November 28 through December 8, 2000. CBS Corporation (now Viacom), the responsible party for the site, conducted the remedial action activities. Appendix A of the field oversight summary contains a photographic log of Tetra Tech's field activities, and Appendix B contains a copy of Tetra Tech's oversight field notes.

If you have any questions about the enclosed summary, please call me at (847) 818-7189.

Sincerely,

Raj Rajaram
Site Manager

Enclosure

cc: Steve Nathan, EPA Project Officer (letter only)
David Alberts, EPA Contracting Officer (letter only)
Tom Kouris, Tetra Tech Program Manager (letter only)

ENCLOSURE

**FIELD OVERSIGHT SUMMARY FOR
NOVEMBER 28 THROUGH DECEMBER 8, 2000
LEMON LANE LANDFILL SITE
BLOOMINGTON, INDIANA**

(Six Pages)

**FIELD OVERSIGHT SUMMARY
LEMON LANE LANDFILL SITE
BLOOMINGTON, INDIANA**

Tetra Tech Oversight Personnel: Jason Massey
Reporting Period: November 28 through December 8, 2000

INTRODUCTION

As requested by the U.S. Environmental Protection Agency (EPA), Tetra Tech EM Inc. (Tetra Tech) is conducting oversight of remedial action (RA) activities at the Lemon Lane Landfill site in Bloomington, Indiana, under Contract No. 68-W7-0003, Work Assignment No. 044-RXBF-0529. CBS Corporation (now Viacom) is the responsible party for the site. PSARA Technologies, Inc. (PSARA), is Viacom's consultant; American Drilling Service (ADS) is Viacom's drilling contractor; WRS Infrastructure and Environment, Inc. (WRS), is Viacom's site remediation contractor; Envirocon is Viacom's geomembrane contractor; and Hanna Trucking is Viacom's hauling contractor. Earth Tech is Tetra Tech's consultant subcontractor.

This report summarizes Tetra Tech's oversight observations and sampling activities from November 28 through December 8, 2000, and discusses issues and developments for the reporting period and future activities. Appendix A of this report contains a photographic log of field activities, and Appendix B contains a copy of Tetra Tech's oversight field notes.

OVERSIGHT OBSERVATIONS

Tuesday, November 28, 2000

Tetra Tech arrived at the site at 8:10 a.m. WRS and PSARA were at the site, which was very wet. The landfill cap was not yet completed because of the conditions. PSARA reported that topsoil was too wet to be delivered to the site. WRS worked on the site perimeter drainage ditch on the southwest side of the landfill (see Photograph No. 1). At 9:00 a.m., WRS began grading the cap toward the site perimeter drainage ditch on the northeast side (see Photograph No. 2). The western portion of the perimeter drainage ditch was complete (see Photograph No. 3). At 9:30 a.m., WRS moved riprap from the staging area and continued work on the perimeter drainage ditch (see Photographs No. 4 and 5).

At 10:00 a.m., Mr. Tom Alcamo of EPA, Mr. Vince Epps of the Indiana Department of Environmental Management (IDEM), and Mr. Dennis Williamson of the Monroe County Health Department (MCHD) arrived at the site for the current RA status meeting. The meeting began at 11:00 a.m., with Tetra Tech, Viacom, PSARA, WRS, EPA, MCHD, and IDEM personnel attending. PSARA reported the information summarized below.

- An estimated 14,385 capacitors, 326,608.57 tons of Toxic Substances and Control Act (TSCA) material, and 4,197.42 tons of non-TSCA material have been removed from all of Viacom's Bloomington sites to date.
- Envirocon has completed placement of all geomembrane, geocomposite, and geotextile material on the landfill cap.
- The southwest retention pond has been lined and graded.
- The 24-inch-diameter drainage pipe has been installed from the southwest retention pond to Sargent's Pond in the northwest portion of the site.
- Viacom and ADS installed a recovery well at the LF-6 location in the southeast portion of the landfill.

Viacom reported 8 to 9 feet of water in the recovery well at the time of installation. At 11:45 a.m., all parties broke for lunch. At 12:30 p.m., all parties (including City of Bloomington Utilities [CBU] employees Mr. John Langley and Ms. Bette Conway) attended an initial site walk-through. The following observations below were noted during the walk-through:

- The perimeter drainage ditch on the north side of the site was complete (see Photograph No. 6).
- The truck route on the east side of the site that leads to Lemon Lane and Gray Street needed pothole repairs and cleanup of mud tracked by hauling vehicles (see Photographs No. 7 and 8).
- RA activities at the Griffin property and the southeast corner of the site were complete (see Photograph No. 9).
- The perimeter drainage ditch on the southeast portion of the site had been prepared for further drilling activities scheduled for November 30, 2000 (see Photographs No. 10).
- The southwest retention pond was complete (see Photograph No. 11).
- Indiana Gas had barricaded off an area on the southwest side of the site to reinstall a gas line (see Photograph No. 12) that was removed prior to RA activities at the site, delaying final construction of the site perimeter fence.

At 1:30 p.m., all parties completed the initial site walk-through. WRS continued to work on the perimeter drainage ditch riprap material. At 1:45 p.m., all government parties left the site. At 3:00 p.m., WRS stopped working on the perimeter drainage ditch, and then resumed adding and grading cover soil on the landfill cap (see Photograph No. 13) because site conditions had improved, allowing soil delivery. Tetra Tech left the site at 4:00 p.m.

Wednesday, November 29, 2000

Tetra Tech arrived at the site at 6:50 a.m. WRS and PSARA were present at the site. At 7:00 a.m., Tetra Tech attended the daily site safety meeting. PSARA reported that topsoil would be delivered to the site today and placed over the soil layer of the landfill cap inside the consolidation limits. PSARA addressed the road conditions of Lemon Lane and Gray Street, stating that WRS will clean the roads. Also, the potholes in the roads will be patched with asphalt.

At 7:20 a.m., WRS prepared a truck route for topsoil delivery. At 7:30 a.m., the first load of topsoil arrived at the site, and WRS began grading cover soil before placement of the topsoil. At 8:30 a.m., more topsoil was delivered to the site (see Photograph No. 14). WRS continued to spread topsoil over the soil layer on the cap as topsoil was delivered to the east side of the site (see Photograph No. 15). At 8:45 a.m., WRS began moving and grading cover soil on the west side of the landfill cap (see Photograph No. 16). In addition, WRS started grading along the riprap on the southwest side of the site (see Photograph No. 17). At 9:00 a.m., WRS finished placing riprap east of the southwest retention pond (see Photograph No. 18).

At 10:45 a.m., WRS continued to load cover soil for placement on the northeast corner of the landfill cap (see Photograph No. 19). At 11:20 a.m., Hanna Trucking delivered topsoil to the northeast side of the cap, while WRS continued spreading and grading the topsoil upon its arrival (see Photograph No. 20). Tetra Tech also observed the intake and outfall areas of the drainage pipe from the southwest retention pond to Sargent's Pond (see Photographs No. 21 and 22). At 12:00 p.m., WRS broke for lunch. Tetra Tech left the site at 12:15 p.m.

Wednesday, December 6, 2000

A final site walk-through was conducted on this day to address any outstanding issues before completion of the Lemon Lane Landfill site RA activities by Viacom. Mr. Raj Rajaram of Tetra Tech attended the final site walk-through along with Mr. Tom Alcamo of EPA, Viacom, PSARA, IDEM, MCHD, and CBU personnel. No further issues were identified. The items discussed during the first site walk-through had been addressed by Viacom. The potholes in Lemon Lane and Gray Street on the east side of the site were patched; however, full repair and cleanup will not occur until spring as the weather becomes more favorable. Also, a temporary site perimeter fence was in the process of being installed in the southwest corner of the site where Indiana Gas had completed installation of a gas line. A permanent site perimeter fence in the southwest corner will be constructed in the near future upon resolution of property deed restrictions with the city of Bloomington.

Friday, December 8, 2000

At the request of EPA, Tetra Tech traveled to Bloomington to sample Quarry Springs after the RA activities had been completed at the Lemon Lane Landfill site. The sampling was to be conducted at these springs southeast of the site and was coordinated with the Illinois Central Spring (ICS) treatment plant facility. Flow at the treatment plant effluent tank was shut down at 10:17 p.m. the previous evening (on December 7, 2000), and a small flow of about 25 gallons per minute from the backwash effluent tank was discharged until 1:17 a.m. on December 8. No treatment plant discharge was to occur until after sampling activities had been completed. During this time, the conduit system below the ICS was allowed to drain for more than 13 hours before sampling occurred, and the water was contained within the treatment plant facility and not discharged.

At 12:00 p.m., Tetra Tech arrived at the Bloomington office of Earth Tech and met with hydrogeologist Mr. John Bassett. At 1:00 p.m., both parties arrived at Quarry Springs southeast of the landfill and ICS. Tetra Tech confirmed with Earth Tech the Quarry Spring A and B sampling locations; however, Quarry Spring C could not be located. Therefore, it was decided that ICS would be sampled instead of Quarry Spring C. In addition, Tetra Tech and Earth Tech located the Quarry Spring A outfall location and discovered very shallow and low-flow conditions at the spring. Therefore, Tetra Tech and Earth Tech dug a small area next to the outfall, allowed the sediment to clear for 30 minutes as the spring water gradually accumulated, and then collected surface water samples later in the day. At 1:30 p.m., Tetra

Tetra Tech located the outfall for Quarry Spring B and collected two 1-liter surface water samples (see Photographs No. 23 and 24).

At 1:45 p.m., Earth Tech employee Mr. Brit Luther, plant manager of the ICS treatment plant facility, confirmed that Tetra Tech and Earth Tech had 1 hour left to complete the sampling activities before discharge of treated water to the springs would resume. At 2:00 p.m., both parties proceeded to the ICS sampling location north of the treatment plant facility. Tetra Tech confirmed the outfall location of the spring with Earth Tech and then collected two 1-liter surface water samples (see Photograph No. 25). At 2:20 p.m., both parties arrived back at Quarry Springs. Quarry Spring A was clear and deep enough to sample. Tetra Tech collected two 1-liter surface water samples from Quarry Spring A.

At 2:30 p.m., Tetra Tech and Earth Tech proceeded to the ICS treatment plant facility to inform the plant manager that sampling activities had been completed. At 3:30 p.m., both parties arrived at the Earth Tech office. Tetra Tech prepared the samples for shipment to TriMatrix Laboratories, Inc., in Grand Rapids, Michigan. Tetra Tech requested that the surface water samples be analyzed for polychlorinated biphenyls and total suspended solids. Sample analytical results will be discussed in a future deliverable to EPA.

ISSUES AND DEVELOPMENTS

On November 28, 2000, EPA, IDEM, and MCHD expressed concern about the road conditions of Lemon Lane and Gray Street east of the site. The road conditions had deteriorated because of truck traffic during the RA activities. EPA instructed Viacom to take appropriate measures to clean up the area and eliminate any safety hazard concerns.

On November 29, 2000, PSARA stated to Tetra Tech that the EPA oversight trailer would remain at the site throughout the winter and gave Tetra Tech permission to store future sampling materials in the trailer during this time period. Also on this date, WRS reported that seeding of the topsoil would not take place until December 1, 2000, weather permitting.

The final site walk-through was held on December 6, 2000. Tetra Tech site manager Mr. Raj Rajaram was present for the walk-through along with Mr. Tom Alcamo of EPA. All RA activities had been completed and were inspected at this time. No serious issues were identified.

On December 8, 2000, Earth Tech informed Tetra Tech that Quarry Spring C could not be located and therefore would not be sampled as originally planned along with Quarry Springs A and B; however, ICS was sampled in its place.

FUTURE ACTIVITIES

As directed by EPA, Tetra Tech will conduct oversight of future activities performed in association with the Lemon Lane Landfill site and provide EPA with field oversight summaries. Planned future activities at the Lemon Lane Landfill site include (1) further conduit investigations by Viacom, and (2) further characterization of fish, surface water, and sediment.

APPENDIX A

**PHOTOGRAPHIC LOG
LEMON LANE LANDFILL SITE**

(13 Pages)



Photograph No. 1
Orientation: Southeast
Description: WRS working on site perimeter drainage ditch

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 2
Orientation: North
Description: WRS grading landfill cap toward site perimeter drainage ditch

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 3

Orientation: South-Southwest

Description: Completed western portion of site perimeter drainage ditch

Location: Lemon Lane Landfill

Date: November 28, 2000



Photograph No. 4

Orientation: Southeast

Description: WRS moving riprap

Location: Lemon Lane Landfill

Date: November 28, 2000



Photograph No. 5
Orientation: South
Description: WRS placing riprap in site perimeter drainage ditch

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 6
Orientation: Northwest
Description: Completed site perimeter drainage ditch on north side of site

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 7

Orientation: East

Description: Truck route on east side of site to Lemon Lane and Gray Street

Location: Lemon Lane Landfill

Date: November 28, 2000



Photograph No. 8

Orientation: North

Description: View of Lemon Lane, which was used as truck route for east side site access

Location: Lemon Lane Landfill

Date: November 28, 2000



Photograph No. 9
Orientation: Southeast
Description: Griffin property and southeast corner of site

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 10
Orientation: East
Description: Site perimeter drainage ditch on southeast side, with drilling rig in background

Location: Lemon Lane Landfill
Date: November 28, 2000



Photograph No. 11
Orientation: Northwest

Location: Lemon Lane Landfill
Date: November 28, 2000

Description: Site perimeter drainage ditch on southwest side of landfill, with retention pond in background



Photograph No. 12
Orientation: Southwest

Location: Lemon Lane Landfill
Date: November 28, 2000

Description: Area on southwest side of landfill that was barricaded off by Indiana Gas



Photograph No. 13

Orientation: Southeast

Description: WRS grading cover soil on southwest corner of landfill cap

Location: Lemon Lane Landfill

Date: November 28, 2000



Photograph No. 14

Orientation: East-Northeast

Description: Topsoil delivery to northeast corner of landfill

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 15

Orientation: Northeast

Description: WRS spreading topsoil on northeast portion of landfill cap

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 16

Orientation: Southwest

Description: WRS applying cover soil on west side of landfill cap

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 17

Orientation: South

Description: WRS grading soil along riprap on southwest perimeter of landfill

Location: Lemon Lane Landfill

Date: November 29, 2000



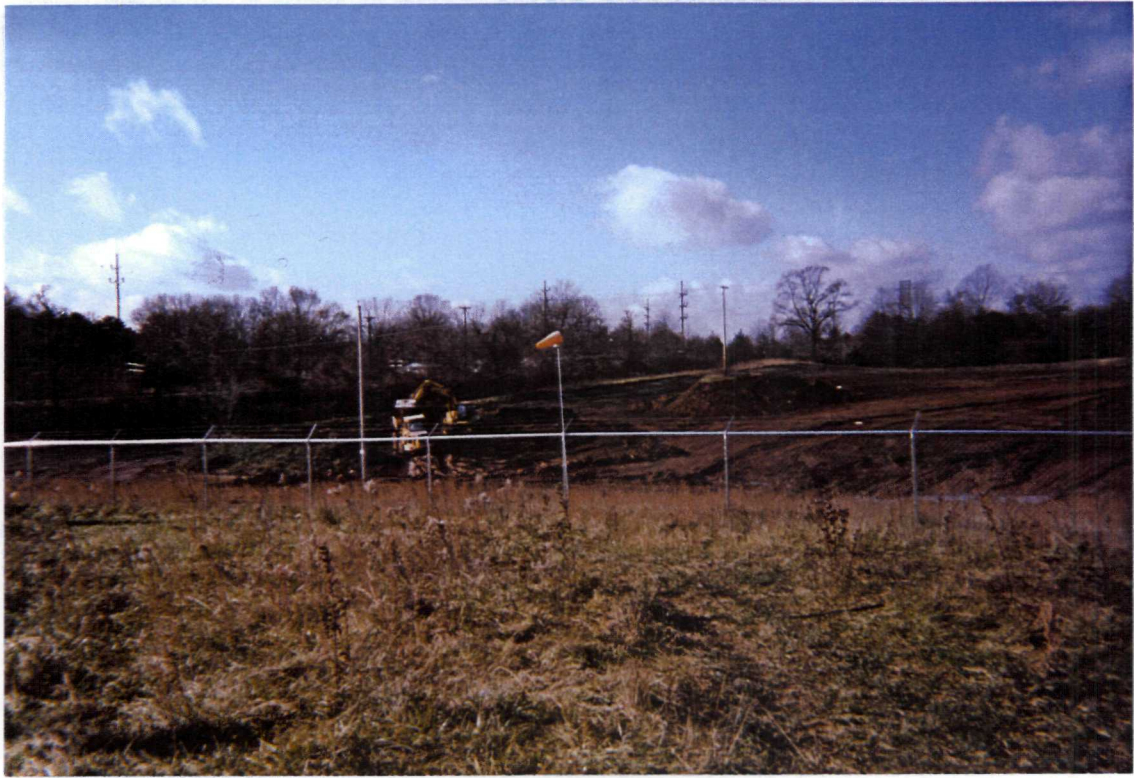
Photograph No. 18

Orientation: Southeast

Description: Riprap in site perimeter drainage ditch east of southwest retention pond

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 19
Orientation: Southwest
Description: WRS loading cover soil

Location: Lemon Lane Landfill
Date: November 29, 2000



Photograph No. 20
Orientation: Northeast
Description: Topsoil delivery to northeast side of landfill cap

Location: Lemon Lane Landfill
Date: November 29, 2000



Photograph No. 21

Orientation: Northeast

Description: Drainage pipe intake from southwest retention pond to Sargent's Pond

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 22

Orientation: Southwest

Description: Drainage pipe outfall area from southwest retention pond to Sargent's Pond

Location: Lemon Lane Landfill

Date: November 29, 2000



Photograph No. 23

Orientation: Southwest

Description: Tetra Tech collecting 1-liter surface water sample from Quarry Spring B

Location: Quarry Springs

Date: December 8, 2000



Photograph No. 24

Orientation: Southwest

Description: Tetra Tech collecting 1-liter surface water sample from Quarry Spring B

Location: Quarry Springs

Date: December 8, 2000



Photograph No. 25

Orientation: Northwest

Description: Tetra Tech collecting 1-liter surface water sample from ICS

Location: Illinois Central Spring (ICS)

Date: December 8, 2000

APPENDIX B

**OVERSIGHT FIELD NOTES
LEMON LANE LANDFILL SITE**

(Three Sheets)

810 Tr arrived on site. WRS & PSARA on site. PSARA reports there will be an 11am meeting. Cage is not complete, weather has not been cooperating. Site is very wet! Rain is in the forecast for tomorrow. PSARA reports they may not be able to get RP soil for cover because of wet conditions. WRS is working on perimeter drainage ditch (Photo: SW) on southeast side. Weather - sunny with exposed high in low 80's, currently 30.

900 WRS striping cap towards perimeter drainage ditch on NE 9M SW side (Photo: N).

930 WRS continues to work on perimeter drainage ditch (pdd) on SW side (Photo: SE). The western portion of the pdd is complete (Photo: S).

1000 WRS moving rocks for pdd placement (Photo: W)

Joan Murray

1010 Tom Alamo (EPA) on-site. An estimated 14,385 cymoxis, 326,608.57 lbs of TSCA, & 9,197.42 tons of non-TSCA removed from all sites to date.

1030 Vince Epps (EDEC), Dennis Williams (MCHD) on-site for meeting & site walk.

1100 Attended weekly status (11/15-11/20) meeting. All parties attended. PSARA reported: Enviro Can completed deployment of all GCL, geomembrane, geocomposite and geotextile, & demobilized on 11/17

- GCL 257,312 Ft²
- Geomembrane 383,119 Ft²
- Geocomposite 270,492 Ft²

2) Retention pond was graded & lined. 3) Completed installation of 24" RCP discharge box from retention pond to Sergeant's Pond.

4) Began placement of Apsail over the south, outside LDC.

5) Continued placement of *Joan Murray*

Field Logbook No. Lemon Lane Date 11-27-80

1100 rip rap in perimeter stretches.
 (CONT.) c) CBS worked w/drilling contractor (ADS) to install recovery well @ the LFC location in the South east. Reported 8-9' of water in well @ time of installation.
 Work planned for week of 12/27:
 1) Begin placement of riprap over the cover soil by an inside loc.
 2) Finish placement of riprap in drainage channels.
 3) Perform final grading & seeding.
 4) Install erosion netting & turf reinforcement on steeper slopes & through retention pond.
 5) START SITE clean up.
 * The majority of these activities are weather dependent.
 local STATE, & Federal concerns:
 1) Fence perimeter still needs to be completed → dependent upon Indiana Gas Service line installation.
 2) Hauling route on Lemon Lane & Grey Street needs attention. →
 Lane Manney

Field Logbook No. Lemon Lane Date 11-28-80

1100 (CONT.) The pot holes need to be patched & the mud which is covering Grey Street needs to be removed. This is the last scheduled status meeting on site. A site walk-through with all gov parties is scheduled for Wednesday, 12/6 @ 1 p.m.
 1145 All parties broke for lunch with Tom Alcano (EMA), Vince Egges (IDEM), John Langley & Bob Conway (SBU), Dennis Williamson (MCHD), PSARA & CBS. Perimeter drainage ditch complete on North side (Photo: NW). Trucks route on west side onto Grey Street/Kemox Lane (Photos).
 Pot holes & mud need attention. Griffins property & the SE corner of the site in good shape (Photo: E). Drilling rig ready for Thursday's activities. Hauling/retention pond completed (Photo: NW)
 Lane Manney

1330 WRS CONTINUES TO WORK ON PERIMETER DRAINAGE DITCH RIP UP. ALL CON. PARTIES

~~94400 A few loads of top soil off site.~~

1500 WRS HAS STOPPED WORK ON DRAINAGE DITCH & IS

GRADING GAP (PHOTO: SE).

1600 SAME SITE ACTIVITIES. TR OFF SITE.

~~WRS~~

650 TR ON-SITE.

700 ATTENDED SAFETY MEETING. WRS

REPORTS TOP SOIL WILL BE DELIVERED TODAY & PLACED OVER THE COVER SOIL LAYER INSIDE LOC. PSARA

ADDRESSED THE ROAD CONDITIONS OF LEMON LANE & GRAY STREET.

WRS WILL SEND GRAY STREET EACH DAY. CURRENT TEMP.

38°. NW WIND @ PMPH, PARTLY CLOUDY. WRS REPORTS HYDROSEEDING WILL NOT TAKE PLACE UNTIL 12/11 OR 12/12, WEATHER PERMITTING.

720 WRS IS PREPARING ROUTE FOR TOP SOIL DELIVERIES.

730 FIRST LOAD OF TOP SOIL DELIVERED.

WRS IS PLACING & GRADING COVER SOIL PRIOR TO PLACEMENT OF TOP SOIL.

800 PSARA REPORTS EPA OVERSIGHT TRAILER WILL REMAIN ON-SITE THROUGH WINTER. TR SCRAPING MATERIAL WILL BE LEFT IN TRAILER.

830 TOP SOIL CONTINUES TO BE DELIVERED (PHOTO: E).

WRS SPREADING (PHOTO: NE) TOP SOIL ON WEST EAST SIDE

Lemon Lane

Field Logbook No. LEMON LAKE Date 11-29-00

845 WRS moving cover soil on
 9M east west side of cap (Photo: S)
 grading/sloping area WRS
 grading along rip rap on
 SW side (Photo: SW)

900 WRS finalizing Miscellaneous
 rip rap (Photo: E)

915 Preparing to dig trench for
 drainage pipe (Photo: W): Southwest
 of retention pond.

930 TF off site to library. Delivered

955 Air results 11/2-11/23.
 TF on-site. Same site
 activities Temp 40°, NW
 wind @ 6mph, sunny skies

1015 TF cleaned out SPA oversight
 Taylor. Left sampling supplies
 for future activities. Dennis
 Williamson (MSHD) on-site.

1045 WRS loading cover soil (Photo: S)
 & unloading on the NE corner
 of site (Photo: E).

1120 Top soil continues to arrive
 on-site (Photo: E). WRS
 continues to expect repair on P

Sherry M. Gray

Field Logbook No. LEMON LAKE Date 11-29-00

1120
 (cont) NE portion of cap (Photo: E).

1130 2 photos of completed RCP
 discharge inlet & outlet.
 RCP inlet; perimeter drainage
 (Photo NE). RCP outlet
 (Photo SW).

1200 WRS broke for lunch. Will
 continue same activities
 remainder of day. TF off
 site.

Sherry M. Gray

Field Logbook No. Quarry Springs Date 12/8/60

- 1200 Arrived @ Earth Tech office & met w/ John Bassett (Earth Tech).
 1230 TT & Earth Tech proceeded to EPA overnight trailer @ Lemon Lane & packed up sampling materials.
 1300 Arrived @ Quarry Spring. Confirmed Quarry A & B sampling locations w/ Earth Tech.
 1330 Located outfall for Quarry B & took 2 x 1/2 samples (Photo). The area was backed up as a result of the Beaver dam. The flow rate could not be estimated from a visual.
 1345 Earth Tech employees working @ W&J plant returned from lunch. They confirmed we still had @ least 1 hr. to complete sampling activities. Proceeded to Quarry A. Found low flow & very shallow depth. TT & John Bassett → Quarry A

Field Logbook No. Quarry Springs Date 12/16/60

- 1345 (Cont.) dug out small area next to outfall & allowed TT to clear out. TT & Earth Tech proceeded to Ill. Spring sample location.
 1400 TT confirmed outfall location w/ Earth Tech & took 2 x 1/2 samples (Photo).
 1415 Arrived back @ Quarry A. Area next to outfall had cleaned & was deep enough to collect sample from.
 1420 TT collected 2 x 1/2 samples from Quarry A (Photo).
 1430 Earth Tech & TT proceeded to Ill. Spring Treatment plant & informed them they could start processing.
 1500 Took site walk through w/ Earth Tech.
 1530 Arrived back @ Earth Tech office & prepared samples for shipment to Tri-Matrix for PCB & TSS analysis.
 1600 TT left site. Quarry A

