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2013 GCCS Construction Certification Report **OCT 29 2013**
for the Lorain County II Landfill

OHIO EPA NEDO

Prepared for



**REPUBLIC
SERVICES, INC.**

Lorain County, Oberlin, Ohio

September 2013

Revised October 2013

Entity: Lorain County II Landfill LLC
Doc Type: Permit Long Term
Doc Subtype: Application + Support
Program: MSW Landfills
County: Lorain
Secondary ID: MSWL 018801

143908.820



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September 12, 2013



Mr. Jerry Parker, P.E., R.S.
Environmental Engineer
Ohio Environmental Protection Agency
Division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087

143908

Subject: **2013 GCCS – Construction Certification Report**
Lorain County II Landfill
Lorain County, Oberlin, Ohio

Dear Mr. Parker:

Brown and Caldwell Ohio, LLC (Brown and Caldwell), on behalf of Republic Services, Inc. (Republic), respectfully submits the 2013 GCCS – Construction Certification Report (Certification Report) for the Lorain County II Landfill located in Lorain County, Oberlin, Ohio. One copy of the Certification Report is enclosed for your review and comment.

Please contact me at 614-923-5006, if you have any questions concerning the Certification Report.

Very truly yours,

Brown and Caldwell Ohio, LLC

A handwritten signature in blue ink, appearing to read "RIAQ".

Richard A. Isaac, P.E.
Principal Engineer

Enclosure

cc: Chris Jaquet, Republic Services, Inc., Fairview Heights, OH, w/enc.
Richard Kostelnick, Republic Services, Inc., Oberlin, OH, w/enc.
John Sabo, Lorain County Health Department, Elyria, OH, w/enc.
Erik Bewley, Ohio EPA, NEDO, DAPC, Twinsburg, OH, w/enc.
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October 28, 2013



Mr. Jerry L. Parker
Environmental Engineer
Ohio Environmental Protection Agency
Northeast District Office
Division of Solid and Infectious Waste Management
2110 East Aurora Road
Twinsburg, Ohio 44087

143908

Subject: Deficiency/Comment Responses
2013 GCCS Construction Certification Report
Lorain County II Landfill
Oberlin, Ohio

Dear Mr. Parker:

Brown and Caldwell on behalf of Republic Services, Inc. (Republic), respectfully submits responses to comments received from the Ohio Environmental Protection Agency (Ohio EPA) Northeast District Office (NEDO) for the Lorain County II Landfill 2013 GCCS Construction Certification Report. The comment responses are based on the e-mail to Chris Jaquet of Republic dated October 11, 2013. Each comment is presented in bold followed by a response in the following narrative.

A "Revisions Instruction Sheet" is also enclosed to assist with updating the hard copy of the 2013 GCCS Construction Certification Report.

DEFICIENCIES

- I. **DEFICIENCY ONE - REDRILLED WELLS CONNECTION TO EXISTING GCCS - EW-13R**
At the bottom of page 2-2, Section 2, "Landfill Gas Extraction Wells", the text in the second bullets states "EW-13R2 is tied into the existing 6-inch lateral at EW-13R." Although EW-13R2 could be located in the southwestern of portion of R.D. 1, Ohio EPA was unable to locate EW-13R on the drawing. The Agency requests that Republic submit a revised drawing which includes the missing extraction well.
Response: The identifier for EW-13R was inadvertently removed from Drawing RD-1. A revised Drawing RD-1 is included with these responses which shows the identifier for EW-13R
- II. **DEFICIENCY TWO - REDRILLED WELLS CONNECTION TO EXISTING GCCS - EW-41R**
Table 2, "Existing Landfill Gas Extraction Wells", page 2-1 of Section 2, "Landfill Gas Extraction Wells", refers to EW-41R which replaced EW-41. Since the Agency could not locate this well on R.D. 1 or any information of it being connected to the existing GCCS, Republic is asked to provide an explanation.
Response: EW-41R is tied into the existing 6-inch lateral at EW-159 via a new 6-inch lateral. The location of EW-41R is to the left of EW-39R2 which is shown on Drawing RD-1 in "red" as an eight-inch diameter well. Information for EW-41R is provided in the sixth bullet from the bottom of Page 2-2.

III. DEFICIENCY THREE - REDRILLED WELLS CONNECTION TO EXISTING GCCS - EW-119R

The tenth bullet on page 2-3, Section 2, "Landfill Gas Extraction Wells", reflects that EW-119R was tied into existing EW-119/119-S. Upon review of the southwestern portion of R.D. 1, it appears that EW-119R has been connected to EW-9R3 via a 6" diameter lateral. A clarification of this inconsistency should be submitted.

Response: EW-119R is connected to EW-9R3 as shown on Drawing RD-1. A revised Page 2-3 is included with these responses stating that EW-119R is connected to EW-9R3.

IV. DEFICIENCY FOUR - REDRILLED WELLS CONNECTION TO EXISTING GCCS - EW-1128R

The twelfth bullet on page 2-3, Section 2, "Landfill Gas Extraction Wells", reflects that EW-128R2 was tied into the existing 6-inch lateral at EW-128R. Upon review of the midwestern portion of Record Drawing (R.D.) 1, it appears that EW-128R2 has been connected to EW-118 / 118S via a 6" diameter lateral. Republic is requested to address this inconsistency.

Response: EW-128R2 is connected to the existing 6-inch lateral (short connection) at EW-128R which is connected by a 6-inch lateral to EW-118/118S.

V. DEFICIENCY FIVE - EXTRACTION WELL BOOT DETAIL

On page 2-5 of the report, the following two statements are made: "...A section of the 40-mil LLDPE FML was cut to overlay the damaged area of the existing 40-mil LLDPE FML by a minimum of six inches to be used as a boot sleeve and ...The geocomposite was repaired by placing a section of geocomposite material cut to overlay the damaged area by a minimum of one foot..." Since neither of these specifications is shown on Detail 3 of R.D. 6, the necessary revisions are requested.

Response: Detail 3 on drawing RD-6 has been revised to show the minimum 6-inch overlap of the 40-mil LLDPE FML and the geocomposite material. Revised Drawing RD-6 is included with these responses.

COMMENTS

I. COMMENT ONE - HORIZONTAL GAS COLLECTOR H14A

In attempting to confirm the information presented in Tables 1 and 2 of Section 2, "Landfill Gas Extraction Wells", pp. 2-1 and 2-2, it was observed that horizontal collector wellhead (H14A) was designated in blue font in the northeastern portion of Record Drawing (R.D.)1 which indicates a "new" component. Republic is asked to explain this wellhead because there is no reference to it in the report.

Response: H14A is a wellhead associated with new horizontal collector H14. The installation of the horizontal collector is discussed as part of the Section 3 narrative, specifically Section 3.2.2. Section 3.2.2 has been revised to indicate that wellheads are associated with the horizontal collector riser pipes. Revised page 3.2 is included with these responses.

II. COMMENT TWO - FINAL COVER WELL INSTALLATION - EW-128R2

At the bottom of page 2-3, the first full paragraph states that EW-128R was one of twelve extraction wells that were installed with final cover present. Since the correct reference is EW-128R2, the appropriate revision is requested.

Response: Page 2-3 has been revised to include the correct reference as EW-128R2. A revised Page 2-3 is included with these responses.

III. COMMENT THREE - FINAL COVER WELL INSTALLATION TRIAL WELD RESULTS

At the bottom of page 2-3, the first full paragraph states "Trial weld results are documented for repair ...in Appendix G." Ohio EPA has several comments based upon a review of the appendix. First, although there were twelve wells installed in final cover, there are fourteen trial tests. Please explain the additional tests. Second, the Agency suggests that the table in the appendix be revised to reflect the well designation associated with each test.

Response: There is no correlation between the number of trial welds and the number of extraction wells. Trial welds are performed for each welding machine and operator at the beginning of the day and every 4 hours thereafter, if the welding equipment and operator continue to weld throughout the entire day. Based on this, the 12 extraction wells installed in the final cover do not relate to the 14 trial weld tests; therefore, there is no well designation associated with each well.

IV. COMMENT FOUR - BORING LOGS - TEW-7R2

During the review of Appendix E, "Landfill Gas Extraction Well Boring Logs", a log was observed for TEW-7R2. This well designation appears to be an error because TEW-7R3 was provided in Section 2.

Response: TEW-7R3 is the correct designation. A revised log for TEW-7R3 is included with these responses.

V. COMMENT FIVE - BORING LOGS - EW-22R

During the review of Appendix E, "Landfill Gas Extraction Well Boring Logs", the last log of the appendix was titled, EW-22R. Because this well designation was not specified in Section 2, Republic is asked to clarify.

Response: EW-22R was not part of the 2013 GCCS program. A boring log for EW-22R was mistakenly included in Appendix E; therefore, the boring log for EW-22R should be removed from Appendix E.

VI. COMMENT SIX - HORIZONTAL COLLECTOR SPECIFICATIONS

The following specifications are provided for the horizontal collector in Section 3.2.2, page 3-2: six-inches of No. 4 stone bedding, backfilling with No. 4 stone and 1 foot thick clean, onsite clay material above the geotextile. In reviewing R.D. 6, it appears that some inconsistency exists between the text and the details. First, although Detail 1 specifies a minimum 6" bedding layer, it does not specify the type of material. Second, since the same detail refers to a backfill material of non-calcareous stone, it is unclear if this material is No. 4 stone as per the text. Lastly, Detail 1 and the profile view at the type of plan sheet specifies "clean soil backfill free of excavated refuse" versus clean, onsite clay material as cited in the text.

Response: Detail 1 on Drawing RD-6 has been revised to clear up the inconsistencies between the detail and the text narrative. The bedding layer is No. 4 stone,

Mr. Jerry L. Parker
Ohio Environmental Protection Agency
October 28, 2013
Page 4

the non-calcareous stone is No. 4 stone, and the backfill is clean soil backfill free of excavated refuse. Page 3.2 and Drawing RD-6 have been revised and are included with these responses.

VII. COMMENT SEVEN - SECONDARY CONTAINMENT AIR TESTING

The last bullet in Section 4.3, page 4-2, states "...the exterior 4-inch or 8-inch secondary containment pipe was tested with a 30 psi of air pressure over a minimum 4-hour period." Since Appendix I, "Pipeline Pressure Test Results", indicates a 25 psi pressure for the 8-inch, dual contained pipe, Republic should clarify this information.

Response: The pressure required test pressure for the 8-inch, dual contained pipe is 25 psi. Page 4.2 has been revised to state a 25 psi air pressure was used over a minimum 4-hour period. Revised page 4.2 is included with these responses.

Please feel free to contact us at (614) 410-6144 if you have any additional questions or comments.

Very truly yours,

Brown and Caldwell



Richard A. Isaac, P.E.
Principal Engineer

cc: Chris Jaquet, Republic Services, Inc., Oberlin, OH, w/enc.
Richard Kostelnick, Republic Services, Inc., Oberlin, OH, w/enc.
John Sabo, Lorain County Health Department, Elyria, OH, w/enc.
Erik Bewley, Ohio EPA, NEDO, DAPC, Twinsburg, OH, w/enc.
Project File

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OCT 29 2013

OHIO EPA NEDO



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

November 5, 2013

Mr. Chris Jaquet, Environmental Manager
Republic Services, Inc.
43502 Oberlin-Elyria Road
Oberlin, OH 44074

RE: LORAIN COUNTY LANDFILL, LLC
PTI – LONG TERM
FINAL APPROVAL
MUNICIPAL SOLID WASTE LANDFILLS
LORAIN COUNTY
MSWL018801

Dear Mr. Jaquet:

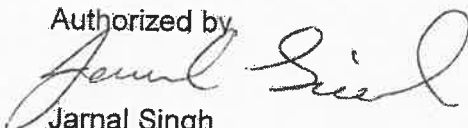
On September 13, 2013, Ohio EPA received the following report for the Lorain County II Landfill which is owned and operated by Republic Services, Inc.: "2013 GCCS Construction Certification Report ". After review of the initial report, Ohio EPA sent a Notice of Deficiency (NOD) letter to Republic on October 17, 2013, which was responded to on October 29, 2013. The report and the NOD response were prepared by Brown and Caldwell on behalf of the owner/operator. The report was submitted in accordance with Ohio Administrative Code (OAC) 3745-27-08(H), effective October 30, 2008. The landfill is located at 43502 Oberlin-Elyria Road, New Russia Township, Lorain County, Ohio.

The report documented the installation of the following four (4) new, gas extraction wells and thirty-seven (37) replacement extraction wells for the gas collection and control system (GCCS): EW-323, -324, -325, -326, -9R3, -13R2, -27R, -39R2, -41R, -42R, -45R2, -46R, -47R2, -48R2, -49R3, -50R2, -51R2, -54R2, -55R, -56R2, -63R2, -102R, -111R, -115R2, -119R, -125R2, -128R2, -135R2, -152R, -153R, -302R, -304R, 305R, -306R, -307R, -308R, -313R, -314R, -315R, TEW-6R2 and TEW-7R3. In addition, the report documented the installation of horizontal gas collectors (HGC) 12A and 14A. Various other GCCS components were required to incorporate the new and replacement extraction wells and the new HGCs into the existing system. Also, airline and force main system components were required to incorporate new extraction well leachate pumps into the GCCS. The pumps were installed in the following wells: EW-114R, -9R3, -170, -54R2, -112R, -113R, -63R2, -169, -93R, -119R, -39R2, -228 and -316. Finally, gas header line repairs / maintenance were also performed. Based on a review of all applicable information, Ohio EPA concurs with the activities as presented.

If you have any questions, I can be reached at (330) 963-1186, or jerry.parker@epa.state.oh.us.

Sincerely,


Jerry L. Parker
Environmental Engineer
Division of Materials and Waste Management

Authorized by

Jarnal Singh
Environmental Supervisor
Division of Materials and Waste Management

JP:ddw

cc: Clarissa Gereby, Erik Bewley-NEDO
Rick Isaac, Brown and Caldwell
John Sabo, Lorain County Health Department
File: [Land/Lorain County II LF/Aut/47], Project ID # 5296

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Notarized Statement

"I, Chris Jaquet, certify that this 2013 GCCS Construction Certification Report for the Republic Services, Inc. Lorain County II Landfill in Lorain County, Oberlin, Ohio and all attachments were prepared in accordance with the provisions and requirements of Ohio Administrative Code (OAC) Rule 3745-27-08(H) effective August 2003. Based on my inquiry of the person or persons who were directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Signature

9/9/13

Date

Chris Jaquet

Name

Area Environmental Manager

Title

On this, the 9 day of September 2013, before me, a notary public, the above signed person, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



Notary Public



LYNN C WILLIAMS
NOTARY PUBLIC - OHIO
MY COMMISSION EXPIRES 08-23-16

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Engineer's Certification

"I, Richard A. Isaac, being a Registered Professional Engineer in the State of Ohio, PE No. E-57074, certify under penalty of law that this 2013 GCCS Construction Certification Report for the Republic Services, Inc. Lorain County II Landfill in Lorain County, Oberlin, Ohio and all attachments were prepared by me or under my direction or supervision in accordance with the provisions and requirements of Ohio Administrative Code (OAC) Rule 3745-27-08(H) effective August 2003 and in accordance with good engineering practices. I have personally visited and examined the facility and am familiar with the information submitted in this document and based on my inquiry of the person or persons directly responsible for preparing this 2013 GCCS Construction Certification Report, the information submitted in the 2013 GCCS Construction Certification Report is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant civil and/or criminal penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Richard A. Isaac

Signature

9/12/2013

Date

Richard A. Isaac, P.E.

Name

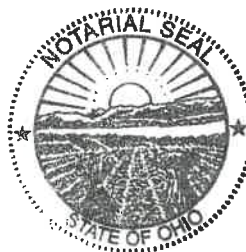


On this, the 12th day of September 2013, before me, a notary public, the above signed person, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Kathleen Alleman

Notary Public



KATHLEEN ALLEMAN
Notary Public
In and for the State of Ohio
My Commission Expires
August 11, 2014

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Section 1

Introduction

The purpose of this 2013 Gas Collection and Control System (GCCS) Construction Certification Report (Certification Report) is to document the construction materials, installation methods, site observations and tests results performed for the 2013 GCCS Construction Project at the Lorain County II Landfill (herein after referred to as the "Landfill"), Lorain County, Oberlin, Ohio. This Certification Report was prepared in general conformance with Ohio Administrative Code (OAC) 3745-27-08(H). The Owner's Notarized Statement and the Engineer's Certification attesting to the accuracy and compliance of this Certification Report are included as Pages ii and iii, respectively.

The Certification Report includes the following sections:

1. Introduction
2. Landfill Gas Extraction Wells
3. Landfill Gas Collection System
4. Airline and Force Main System
5. System Repairs and Maintenance

A discussion of each new or modified component of the Landfill GCCS is provided in the appropriate section. Daily field logs, photographs, project record drawings, extraction well installation boring logs, laboratory test results, pipe pressure test results, and additional relevant information is provided in the appendices.

Under the approval of Republic Services, Inc. (Republic), maintenance was performed on the existing Landfill GCCS. Thirty-seven GCCS extraction wells were replaced (re-drilled), four new GCCS extraction wells were installed, and two new horizontal collectors were constructed (refer to the Project Record Drawings in Appendix D for locations).

The field work was performed from January 10, 2013 to February 21, 2013 as Phase 1/Phase 2 and May 7, 2013 to July 16, 2013 (Phase 3) by Republic's subcontractor, American Environmental Group Ltd. (AEGL) of Richfield, Ohio. Work commenced in January, but due to severe frost heave and freezing and thawing conditions, the project was halted in February until weather conditions improved and allowed AEGL to mobilize again in May. AEGL, under the supervision of Kevin Shull (Gas Extraction System Operations Manager) and Jeff Enochs (Drilling Operations Manager), performed the construction/installation of the extraction wells and pipeline components. Construction quality assurance (CQA) was performed by Brown and Caldwell with Janet Todia, Amanda Gullet, and Bill Foster serving as CQA monitors providing day-to-day observations and documentation. Richard A. Isaac, P.E. of Brown and Caldwell provided oversight serving as the Certifying Engineer. Ms. Todia also provided project management. Daily field logs and construction/installation photographs are included in Appendices A and B, respectively. Qualifications for Ms. Todia, Ms. Gullet, Mr. Foster, and Mr. Isaac are included in Appendix C.

For the purposes of this Certification Report, construction quality assurance (CQA) is used to refer to activities performed by Brown and Caldwell, where quality control (QC) refers to observation and testing activities performed by the GCCS component's installer (AEG) and material supplier (ISCO).

1.1 Field Modifications/Deviations

During the course of the construction/installation activities, minor modifications/deviations from the construction drawings were implemented in the field. These minor modifications/deviations are listed below, and are also reflected in the Project Record Drawings included in Appendix D:

- New extraction well EW-326 and re-drilled extraction well EW-41R were added to the 2013 GCCS Construction Project.
- The following wells were drilled to a depth less than the scheduled borehole depths due to refusal or unsuitable drilling material related to encountering sludge material:

Well ID	Actual Depth (ft.)	Scheduled Bore Depth (ft.)
EW-9R3	108	120
EW-13R2	95	120
EW-41R	98	111
EW-48R2	91	120
EW-50R2	53	77
EW-56R2	109	114
EW-119R	115	117
EW-125R2	99	120
EW-135R	98	120
EW-152R	116	120
TEW-6R2	86	109
TEW-7R3	95	120

- Pumps were lost in original well locations for EW-56R, TEW-6R, TEW-7R2, EW-153, EW-125R, EW-115R, EW-48R, and EW-135. Therefore, no pumps were installed in the well re-drill locations. In addition, no pump was installed in EW-18 due to the well being pinched at a depth of approximately 28 feet below grade. Note: Though pumps were scheduled to be installed in wells EW-122R, EW-130R, and EW-133R, pumps had been previously installed in these wells and were fully operational at the time of this construction event.
- This construction event was heavily impacted by waste disposal operations and movement of the active face as well as naturally occurring settlement of the waste mass. Therefore, several wells installed during January 2013 lost vacuum due to pinching of the lateral pipelines from filling operations and/or settlement and were reconnected to the GCCS with new laterals after the project resumed in May 2013. The following wells have lateral connections differing from the Permit to Install (PTI) Alteration Request Plan View drawing:
 - EW-42R is currently tied into the existing 12-inch subheader to the south. EW-42R does not have a remote wellhead.
 - EW-45R, EW-46R, and EW-49R3 are currently tied into the new 12-inch subheader with new 6-inch laterals. These wells no longer have remote wellheads.
 - EW-153R is connected to the new 12-inch subheader via a new 6-inch lateral.
 - The new 6-inch lateral for EW-156 is connected to the new 6-inch lateral for EW-49R3. EW-156 does not have a remote wellhead.

- EW-51R2 and EW-54R2 are tied into the existing 6-inch lateral at EW-321. A 6-inch control valve was installed in-line to the north of EW-54R2.
- EW-50R2 is connected to the new 6-inch lateral for EW-51R2 and EW-54R2 between the new 6-inch control valve and EW-321.
- EW-302R is connected to the existing 6-inch lateral at EW-301 via a new 6-inch lateral.
- EW-306R is connected to the existing 6-inch lateral at EW-310 via a new 6-inch lateral.
- EW-307R is connected to the existing 6-inch lateral at EW-311 via a new 6-inch lateral.
- EW-304R is connected to the new 6-inch lateral at EW-313R via a new 6-inch lateral. The new 6-inch lateral for EW-313R and EW-314R is connected to the existing 6-inch lateral at EW-316 instead of the existing 12-inch header.
- The proposed 6-inch lateral from the 12-inch header access riser (north of EW-318) to EW-322 was not constructed. Therefore:
 - EW-324 is connected to the existing 6-inch lateral at EW-318 via a new 6-inch lateral.
 - EW-325 and EW-319 are connected to the existing 6-inch lateral at H12 via a new 6-inch lateral.
- EW-41R and EW-39R2 are tied into the existing 6-inch lateral at EW-159 via a new 6-inch lateral.
- EW-115R2 is tied into the new 6-inch lateral between EW-107R and EW-114R via a new 6-inch lateral.
- EW-9R3 is currently tied into the 6-inch lateral that supplies vacuum to EW-119R.
- EW-304R is currently tied into the 6-inch lateral that supplies vacuum to EW-313R.
- EW-47R2 is currently tied into the 6-inch lateral that supplies vacuum to EW-46R.
- EW-54R2 is currently tied into the 6-inch lateral that supplies vacuum to EW-51R2.
- EW-157 is currently tied into the 6-inch lateral that supplies vacuum to EW-45R2.
- H15S has been abandoned due to retention of liquid in the south end of the horizontal collector.
- It should also be noted that due to the severe weather conditions encountered in January 2013 and February 2013, all wells on the north slope were tied into their assigned vacuum sources above grade, as it was not possible to move heavy equipment on the frozen slope to bury laterals. The following wells were tied into corresponding vacuum sources above grade:
 - EW-306R to EW-310 (vacuum source)
 - EW-307R to EW-311 (vacuum source)
 - EW-308R to EW-312 (vacuum source)
 - EW-314R to EW-316 (vacuum source)
 - EW-315R to EW-315 (vacuum source)
 - EW-324 to EW-318 and H15N (vacuum source)
 - EW-325 to EW-319 and H16N (vacuum source)
- In addition, several airline and force main runs were reconfigured due to ease in locating tie in points above grade and where the depth of the existing airline and force main below grade was accessible:
 - EW-63R2 is currently tied into EW-58R2 (airline and force main connection)
 - EW-54R2 is currently tied into EW-50R2 (airline and force main connection).

- There was no need to tie in the airline and force main from EW-9R3 to EW-119R, since EW-9R3 could be connected to an existing airline and force main located at the former EW-9R2.
 - EW-169 is currently tied into EW-158R (airline and force main connection).
- It should also be noted that while drilling the initial borehole for EW-39R2, an existing airline and force main was severed approximately 32 feet below grade. Isolation valves for this portion of the air and force main loop were temporarily isolated prior to repair. The drill rig was moved to a new location and drilling continued. The abandoned well borehole at the original location of EW-39R2 was marked with fencing as a precaution for naturally occurring future settlement, so more soil could be continuously placed in the area over time. Repairs to the airline and force main were made by installing new segments of pipe. The east tie-in for the new 2-inch airline and 4-inch force main was located at approximately 12 feet below grade at the west end of the existing airline and force main road crossing beneath the main haul road. The lines continued west to supply EW-39R2 and through a new haul road crossing to the isolation valves due west. The airline and force main loop is currently restored and functional. The existing section of the loop that was damaged by the drill rig has been abandoned in place.

Section 2

Landfill Gas Extraction Wells

A total of four new and thirty-seven replacement extraction wells were installed at the Landfill. The new extraction wells are listed in the following Table 1:

Table 1. New Extraction Wells	
✓	EW-323
✓	EW-324
✓	EW-325
✓	EW-326

Existing extraction wells that were abandoned and replaced are listed in the following Table 2:

Table 2. Existing Landfill Gas Extraction Wells	
Replacement	Abandoned
✓ EW-9R3	EW-9R2
✓ EW-13R2	EW-13R
✓ EW-27R	EW-27
✓ EW-39R2	EW-39R
✓ EW-41R	EW-41
✓ EW-42R	EW-42
✓ EW-45R2	EW-45R
✓ EW-46R	EW-46
✓ EW-47R2	EW-47R
✓ EW-48R2	EW-48R
✓ EW-49R3	EW-49R2
✓ EW-50R2	EW-50R
✓ EW-51R2	EW-51R
✓ EW-54R2	EW-54R
✓ EW-55R	EW-55
✓ EW-56R2	EW-56R
✓ EW-63R2	EW-63R
✓ EW-102R	EW-102
✓ EW-111R	EW-111
✓ EW-115R2	EW-115R
✓ EW-119R	EW-119 and EW-119S
✓ EW-125R2	EW-125R
✓ EW-128R2	EW-128R
✓ EW-135R	EW-135
✓ EW-152R	EW-152
✓ EW-153R	EW-153
✓ EW-302R	EW-302
✓ EW-304R	EW-304

Table 2. Existing Landfill Gas Extraction Wells (cont.)

Replacement	Abandoned
✓ EW-305R	EW-305
✓ EW-306R	EW-306
✓ EW-307R	EW-307
✓ EW-308R	EW-308
✓ EW-313R	EW-313
✓ EW-314R	EW-314
✓ EW-315R	EW-315
✓ TEW-6R2	TEW-6R
✓ TEW-7R3	TEW-7R2

Existing extraction wells were abandoned by excavating around the existing well casing to an approximate four-foot depth below the existing ground surface and cutting off the exposed casing. After filling the casing with soil, a polyvinyl chloride (PVC) slip cap, with a bead of silicone sealant inside the cap, was fastened to the top of the cut-off well casing with lag screws. The excavation was backfilled with the excavated materials augmented with clean on-site soil, as needed.

Existing extraction wells within the final cover area were abandoned by excavating around the existing well casing down to the geosynthetic components of the final cover system. The exposed casing was cut off just above the geosynthetic component of the final cover system, the casing was filled with soil, and a PVC slip cap, with a bead of silicone sealant inside the cap, was fastened to the top of the cut-off well casing with lag screws. The excavated vegetative/protective layer material was placed in the excavation back to the level of the adjacent soil material.

The four new extraction wells, listed in Table 1, were connected to the Landfill GCCS using 6-inch HDPE lateral pipelines, tees, and well risers. Most of the thirty-seven re-drilled (replacement) extraction wells are connected to the Landfill GCCS with 6-inch laterals that tie into the existing 6-inch laterals that served the associated abandoned extraction wells. In some cases, vacuum had been lost at the associated abandoned extraction well and new 6-inch laterals were installed to supply vacuum to the replacement wells.

New wells EW-323, EW-324, EW-325, and EW-326 were tied into the existing GCCS as follows:

- ✓ EW-323 is tied into the existing 6-inch above grade lateral at EW-315R.
- ✓ EW-324 is tied into the existing 6-inch above grade lateral at EW-318.
- ✓ EW-325 is tied into the existing 6-inch above grade lateral at EW-319.
- ✓ EW-326 is tied into the existing 6-inch lateral at EW-22R.

The thirty-seven re-drilled (replacement) extraction wells were tied into the existing GCCS as follows:

- ✓ EW-9R3 is tied into the new 6-inch lateral at EW-119R.
- ✓ EW-13R2 is tied into the existing 6-inch lateral at EW-13R.
- ✓ EW-27R is tied into the 24-inch perimeter header via a new 8-inch lateral.
- ✓ EW-39R2 and EW-41R are tied into the existing 6-inch lateral at EW-159.
- ✓ EW-42R is tied into the existing 12-inch subheader south of the well location.
- ✓ EW-45R2 is tied into the new 12-inch subheader south of the well location.
- ✓ EW-46R is tied into the new 12-inch subheader south of the well location.
- ✓ EW-47R2 is tied into the new 12-inch subheader via a new 6-inch lateral.
- ✓ EW-48R2 is tied into the existing 6-inch lateral at EW-48R.

- EW-49R3 is tied into the new 12-inch subheader via a new 6-inch lateral.
- EW-50R2 is tied into the new 6-inch lateral for EW-51R2 and EW-54R2 between EW-54R2 and EW-321 via a new 6-inch lateral.
- EW-51R2 and EW-54R2 are tied into the existing 6-inch lateral at EW-321 via a new 6-inch lateral.
- EW-55R is tied into the existing 6-inch lateral at EW-55.
- EW-56R2 is tied into the existing 6-inch lateral at EW-56R.
- EW-63R2 is tied into the existing 6-inch lateral at EW-63R.
- EW-102R is tied into the existing 6-inch lateral at EW-102.
- EW-111R is tied into the new 8-inch lateral for EW-110R and EW-27R.
- EW-115R2 is tied into the new 6-inch lateral installed between EW-107R and EW-114R.
- **EW-119R is tied into the existing 6-inch lateral at EW-9R3.**
- EW-125R2 is tied into the existing 6-inch lateral at EW-125R.
- EW-128R2 is tied into the existing 6-inch lateral at EW-128R.
- EW-135R is tied into the existing 6-inch lateral at EW-135.
- EW-152R is tied into the existing 6-inch lateral at EW-152.
- EW-153R is tied into the new 12-inch subheader north of the well location.
- EW-302R is tied into the existing 6-inch lateral at EW-301.
- EW-304R is tied into the new 6-inch lateral at EW-313R.
- EW-305R is tied into the existing 6-inch lateral at EW-305.
- EW-306R is tied into the existing 6-inch above grade lateral at EW-310.
- EW-307R is tied into the existing 6-inch above grade lateral at EW-311.
- EW-308R is tied into the existing 6-inch lateral at EW-312.
- EW-313R is tied into the existing 6-inch lateral at EW-313.
- EW-314R is tied into the existing 6-inch above grade lateral at EW-316.
- EW-315 is tied into the existing 6-inch lateral at EW-317.
- TEW-6R2 is tied into the existing 6-inch lateral at TEW-6R.
- TEW-7R3 is tied into the existing 6-inch lateral at TEW-7R2.

Twelve of the extraction wells (EW-9R3, EW-13R2, EW-27R, EW-102R, EW-111R, EW-115R2, EW-119R, EW-128R2, EW-135R, EW-326, TEW-6R2, and TEW-7R3) installed for the 2013 GCCS project were installed within the area of the Landfill with final cover present (location of these extraction wells is shown on the Project Record Drawings in Appendix D). The geosynthetic components of the final cover system were removed as the drilling bucket advanced through the final cover system. Following completion of the replacement extraction well, repair of the geosynthetic components was performed by AEGL using a boot sleeve (see Section 2.2 for a discussion of the repair procedures). The repairs provided a continuous and intact barrier at the replacement extraction well location. Trial weld test results are documented for the repair of the geosynthetic components of the final cover system and can be found in Appendix G.

Periodic air monitoring was performed during the installation of the new and replacement extraction wells (see Subsection 2.4).

2.1 Materials

The materials used for the construction/installation of the new and replacement extraction wells included the following:

- 6-inch and 8-inch diameter solid and perforated SDR 11 HDPE pipe with HDPE butt caps and 6-inch and 8-inch Schedule 40 PVC end caps
- No. 4 stone (1-inch to 3-inch washed non-carbonate) backfill material
- Geonet with geotextile, which was heat-bonded to one side
- 8-mesh granulated bentonite
- Nominal 40-mil thick LLDPE flexible membrane liner (FML)
- Geocomposite
- HDPE extrusion welding rod

2.2 Construction/Installation Methods

Equipment used to construct/install the extraction wells included an IMT AF-130 track-mounted drill rig, Caterpillar 953D track loader, Caterpillar 316E and 320D hydraulic excavators, JCB 718 articulated dump truck, ISCO Hotline HDPE butt-fusion pipe welding equipment, DemTech Pro-X extrusion welder and Pro-Tester, Leister hot air machine, DemTech vacuum box, and various hand tools. The general construction/installation methods were as follows:

- A field survey was conducted by the Wellert Corporation of Medina, Ohio to stake the design location for each extraction well and the final well schedule was updated accordingly.
- Boreholes for the extraction wells were drilled into the waste in advance of installing the extraction well materials and equipment. Drilling was performed using an IMT AF-130 track-mounted drill rig with a 36-inch diameter drilling bucket to the depth for each individual extraction well indicated in the final extraction well schedule on the Project Record Drawings (see Appendix D).
- Waste material encountered within the borehole was placed in the articulated dump truck for transportation and disposal at the active working face of the Landfill.
- Depth of the borehole was controlled and verified using a weighted tape measure. As the drilling bucket advanced, the cuttings were visually observed to ensure no geosynthetics were encountered. Waste temperatures and waste composition were also recorded (see boring logs in Appendix E).
- Final borehole depth was confirmed using a weighted tape measure prior to extraction well casing placement.
- Solid wall and perforated sections of HDPE pipe were butt-fusion welded to the lengths provided in the final extraction well schedule for placement into the borehole. A typical detail for the extraction well construction is provided on the Project Record Drawings in Appendix D.
- Using the track loader, excavator, or a cable winch mounted on the mast of the drill rig, the welded HDPE casing was raised and slipped into the borehole. A metal grate was placed around the casing to position the casing as close as possible to the middle of the borehole. The casing was secured to the metal grate to prevent the casing from sagging.
- No. 4, washed, non-carbonate stone was placed in the borehole annulus from the bottom up to a minimum of two feet above the top of the perforated section of the 6-inch or 8-inch HDPE casing. The geotechnical test results for the No. 4 stone are provided in Appendix F.

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- Geonet with geotextile, which was heat-bonded to one side of the geonet, was placed over the stone with the geonet in contact with the stone. A one-foot clean soil plug was placed on top of the geonet.
- A two-foot thick (minimum) granular bentonite seal was placed on top of the clean soil plug. The granular bentonite was hydrated with water and on-site clean soil material was placed on top of the granular bentonite seal. The clean soil material varied in thickness. The two-foot thick (minimum) granular bentonite seal was placed on top of the clean soil material so that the top of the upper granular bentonite seal extended a minimum of six inches into the cover soil.
- Repairs to the geosynthetic components of the final cover system consisted of installing a “boot sleeve” around the new replacement well casing and extrusion welding the boot sleeve to the FML component of the final cover system. The repair procedures included the following:
 - The excavator and hand tools were used to expose an area around the new replacement well casing.
 - Surface of the existing 40-mil LLDPE FML was cleaned of debris.
 - A section of the 40-mil LLDPE FML was cut to overlay the damaged area of the existing 40-mil LLDPE FML by a minimum of six inches to be used as a boot sleeve.
 - The 40-mil LLDPE FML boot sleeve was placed over the casing leaving enough material to secure the boot sleeve to the casing.
 - The 40-mil LLDPE FML boot sleeve was heat-bonded to the existing FML component of the final cover system and the new replacement well casing.
 - A hand grinder (60-grit sand paper) was used to prepare the area of the existing FML component where the extrusion welding would be performed prior to initiating welding.
 - Trial welds were performed for the extrusion welders prior to performing the extrusion welding of the 40-mil LLDPE FML boot sleeve to the existing FML component of the final cover system.
 - The 40-mil LLDPE FML boot sleeve was extrusion welded to the existing FML component of the existing final cover system and the new replacement well casing.
 - The geocomposite was repaired by placing a section of geocomposite material cut to overlay the damaged area by a minimum of one foot.
- Schedule 40 PVC temporary caps were installed using set screws and silicone sealant on top of the new well casings. Upon completion of the Landfill GCCS piping, Landtec wellheads were installed as permanent replacements for the temporary caps. In most cases, each newly drilled extraction well was connected the same day to either temporary or permanent vacuum laterals to proactively mitigate potential odor issues. All wells and associated risers were marked with reflective tape to increase visibility.
- Landtec wellheads were installed using flexible couplers secured with hose clamps.

2.3 Observations/Tests

The following observations and tests were performed during the construction/installation of the new and replacement extraction wells:

- Materials used in the construction/installation of the new and replacement extraction wells were visually observed for conformance with the construction drawings, as well as to verify there were no signs of damage. The extraction well casing materials were determined to be in conformance with the construction drawings and no visual damage to the materials was observed.

- Perforation size (diameter) and pattern (spacing around the circumference and along the length) for the perforated portion of the extraction well casings were observed for general conformance with the construction drawings.
- Boreholes were observed during the drilling to document that the boreholes were completed to the appropriate depth as provided in the final extraction well schedule provided on the Project Record Drawings included in Appendix D.
- No. 4 washed non-carbonate stone was used to backfill the annular space between the perforated extraction well casing and the borehole. The geotechnical test results for the gradation and carbonate content of the No. 4 stone are provided in Appendix F.
- Brown and Caldwell CQA monitors observed the butt-fusion welding process used to connect the HDPE pipe casing sections together to verify appropriate welding procedure guidelines were followed. The butt-fusion welding was performed according to acceptable standards.
- Brown and Caldwell CQA monitors obtained and recorded measurements to verify the extraction wells were constructed according to the construction drawings as well as to create the Project Record Drawings.
- The AEGL driller and the Brown and Caldwell CQA monitors recorded refuse temperature, composition, and degree of moisture at approximately five-foot intervals during drilling activities. The AEGL well logs are provided in Appendix E.

The following observations and tests were performed during the installation of the 40-mil LLDPE FML repairs:

- Brown and Caldwell CQA monitor performed visual observation and documentation of the repairs and vacuum box testing.
- Prior to welding of the 40-mil LLDPE FML to the existing FML and new replacement well casing, trial welds were performed using the extrusion welder. Test sections of the welds were cut and a tensiometer was used to perform three peel and two shear tests on the test weld sections. The minimum required value for a passing peel test for 40-mil LLDPE is 60 lb/in. The minimum required value for passing a shear test for 40-mil LLDPE is 44 lb/in. The results of the peel and shear tests are presented in Appendix G.

2.4 Air Monitoring

Air monitoring was performed during the drilling of the new and replacement extraction wells. A multi-gas QRAE monitoring device, manufactured by RAE Systems, was used to conduct the air monitoring. The atmospheric concentrations within the breathing zone were monitored for methane (lower explosive limit [LEL]), oxygen, carbon monoxide, and hydrogen sulfide. The air monitoring results, which were recorded by the Brown and Caldwell CQA monitor, are provided in Appendix H.

Section 3

Landfill Gas Collection System

AEGL installed the GCCS components required to incorporate the new and replacement extraction wells and the new horizontal collectors into the existing GCCS. Approximately 5,290 linear feet of 6-inch diameter SDR 17 solid-wall HDPE pipe was installed to connect the new and replacement extraction wells and the new horizontal collectors on line with the existing Landfill GCCS. Approximately 586 linear feet of 12-inch SDR 17 solid-wall HDPE pipe was used to construct the new subheader. The approximate linear footage of pipeline installed is included in the daily field logs for AEGL (see Appendix A).

3.1 Materials

The components used to connect the new and replacement extraction wells into the existing Landfill GCCS included the following:

- 6-inch diameter solid SDR 17 HDPE lateral pipe
- 6-inch diameter perforated SDR 11 HDPE pipe (horizontal collectors)
- 12-inch diameter solid SDR 17 HDPE header pipe
- 6-inch diameter butterfly valve
- Landtec well heads and combination well heads
- Various sizes of HDPE couplings, reducers, tees, and other fittings and appurtenances

3.2 Construction/Installation Methods

Equipment used to connect the new and replacement extraction wells and the new horizontal collectors into the existing Landfill GCCS included Caterpillar 316E and 320D hydraulic excavators, Caterpillar 725 articulated dump trucks, a Caterpillar D5K track-type tractor, McElroy HDPE butt-fusion pipe welding equipment, and various hand tools.

3.2.1 Lateral Construction/Installation Methods

The general construction/installation methods used to connect the new and replacement extraction wells into the existing Landfill GCCS were, as follows:

- HDPE pipe of various diameters was delivered to the site and stored in a clean area.
- The 4-inch, 6-inch, 8-inch, and 12-inch HDPE pipe was butt-fusion welded on-site by AEGL prior to being connected to the existing Landfill GCCS.
- HDPE pipe was placed in the trenches following completion of the excavation.
 - HDPE pipe was installed to achieve the minimum design slopes of three percent within the limits of waste.
 - Pipe bedding consisted of clean cover soil material removed from the trench excavation.
 - Survey markers were placed at 50-foot intervals along the pipelines, at road crossings, and at fitting locations. The survey markers were removed following completion of the field survey activities.

- Installed pipelines, fittings, components, and road crossings were field surveyed after installation.
 - Locations of the pipelines, components, and appurtenances are provided on the Project Record Drawings in Appendix D.
 - 5-mil x 3-inch underground detectable tape with the words “CAUTION BURIED GAS LINE BELOW” was placed approximately 1-foot above the HDPE pipe during backfilling activities.
- Waste material encountered within the excavated soil was separated from the soil as the trenches were backfilled. The waste material was placed in an articulated dump truck for transportation and disposal at the active working face of the Landfill.
 - Additional soil was obtained from an onsite stockpile to augment the backfill soil, if needed.

3.2.2 Horizontal Collector Construction/Installation Methods

The general methods used to construct and connect the new horizontal collectors into the existing Landfill GCCS were as follows:

- Six-inch diameter solid-wall SDR 17 HDPE pipe and perforated SDR 11 HDPE pipe was delivered to the site and stored in a clean area.
- The 6-inch diameter HDPE pipe was butt-fusion welded on-site by AEGL.
- Trenches were excavated with a minimum width of 3 feet and a minimum depth of 4 feet.
- Six-inches of No. 4 washed non-carbonate stone bedding was placed at the bottom of the trench.
- Six-inch diameter SDR 11 HDPE perforated horizontal collector pipe and solid riser pipe(s) **equipped with wellheads** were set in the trench on the stone bedding.
- Backfilling was completed with No. 4 **washed non-carbonate** stone.
- One roll-width (approximately 15 feet) of geotextile was placed above and centered on the trench.
- **Clean soil backfill free of excavated refuse** was spread in a 1-foot thick lift to completely cover the geotextile.

A detail for the horizontal collectors is provided on the Project Record Drawings in Appendix D.

3.3 Observations/Tests

The following observations and tests were performed during the connection of the new and replacement extraction wells to the existing Landfill GCCS:

- Pipe was visually observed for conformance with the construction drawings, as well as to verify there were no signs of damage. The pipe was determined to be in conformance with the construction drawings and no visual damage to the pipe was observed.
- Butt-fusion welds were visually observed prior to back-filling the trenches. Brown and Caldwell CQA monitors observed hot plate temperature, holding times, and welding techniques. The welds were determined to be in conformance with the specifications.
- Pipelines were pressure tested prior to being connected to the existing Landfill GCCS, and while in place. Pressure tests consisted of applying a minimum of 25 psi for the 4-inch, 6-inch, and 8-inch diameter SDR 17 and 10 psi for the 12-inch diameter SDR 17 HDPE pipe. All tests were conducted over a minimum four-hour period. Prior to beginning the test, during the test, and following completion of the test, the gauges were visually assessed for damage and proper units of measurement. The results of the pressure tests indicated that the pipelines did not have any leaks. Pipe pressure test results are provided in Appendix I.

- The geotechnical test results for the No. 4 stone were reviewed and determined to be in compliance with the gradation and carbonate residue requirements (minimum acceptable carbonate content ≤ 5 percent).

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Section 4

Airline and Force Main System

AEGL installed the airline and force main system components required to incorporate the new extraction well leachate pumps into the existing Landfill GCCS. A total of 13 pneumatic pumps were installed at the Landfill as listed in Table 3. An estimated 9,145 linear feet of HDPE pipe was installed to connect the new extraction well pumps with the leachate collection and compressed air system. Of that pipe footage installed, 4,570 linear feet was 2-inch diameter HDPE airline, 200 linear feet was 2-inch diameter HDPE leachate force main, 1,100 linear feet was 3-inch diameter HDPE force main, 1,290 linear feet was 4-inch diameter HDPE force main, 830 linear feet was 2-inch x 4-inch diameter dual-contained HDPE leachate force main, and 1,155 linear feet was 4-inch x 8-inch diameter dual-contained force main. The approximate linear footage of pipeline installed is included in the daily field logs for AEGL (see Appendix A).

Table 3. Extraction Well Pumps and Depths

Well	Pump Depth (ft)
EW-114R	101
EW-9R3	103
EW-170	121
EW-54R2	71.5
EW-112R	103
EW-113R	102.5
EW-63R2	117.5
EW-169	112
EW-93R	42
EW-119R	110
EW-39R2	92
EW-228	103
EW-316	52

Two-inch airlines and 2-inch, 3-inch, 4-inch, 2-inch x 4-inch, and 4-inch x 8-inch force mains were installed to operate newly installed pumps and to accommodate future installation of additional pumps. The airline and force main was connected to the existing airline and force main by pinching the existing lines and butt fusing new lines to extend the runs. The locations of the new and extended airlines and force mains are shown on the Project Record Drawings in Appendix D.

4.1 Materials

The airline and force main components include the following materials:

- 2-inch diameter HDPE SDR 9 pipe (airline)
- 2-inch diameter HDPE SDR 11 pipe (force main carrier pipe)
- 3-inch diameter HDPE SDR 11 pipe (force main carrier pipe)
- 4-inch diameter HDPE SDR 11 pipe (force main carrier pipe)
- 4-inch diameter HDPE SDR 17 pipe (force main secondary containment pipe)

- 8-inch diameter HDPE SDR 17 pipe (force main secondary containment pipe)
- 12-inch diameter corrugated metal pipe (road crossing encasement)
- QED Pneumatic pumps and associated hardware
- Various sizes of HDPE tees, fittings, and appurtenances

4.2 Construction/Installation Methods

Equipment used to install the airline and force main system included Caterpillar 316E and 320D hydraulic excavators, a Caterpillar D5K track-type tractor, Caterpillar 725 articulated dump trucks, Friatec electro-fusion couplers and welding equipment, McElroy butt-fusion welding equipment and various hand tools. The general construction/installation methods used to install the airline and force main system were as follows:

- The HDPE pipe was butt-fusion welded on-site by AEGL.
- A trench was excavated at the specified location to a depth of approximately 36 inches below the existing ground surface.
- The leachate force main and airline piping was placed in a trench on a bed of compacted soil and backfilled with clean on-site soil.
- Waste encountered was separated from the fill as the trench was backfilled. Excavated waste was placed in an articulated dump truck for disposal at the active working face of the Landfill.
- Riser pipes at each extraction well were connected to the pumps installed in the extraction wells listed in Table 3.

4.3 Observations/Tests

The following observations and tests were performed during the installation of the leachate force mains and airline:

- The HDPE pipe was visually observed for conformance with the construction drawings, as well as to verify there were no signs of damage. The pipe was determined to be in conformance with the construction drawings and no visual damage to the pipe was observed.
- Butt-fusion welds were visually observed to be completed according to the butt-fusion welding specifications.
- Installed force mains and airlines were press
- ure tested prior to being connected to the existing Landfill GCCS. The pressure test for the airline consisted of applying 100 psi of air pressure over a minimum 4-hour period. The pressure test for the leachate force main consisted of applying 50 psi of air pressure over a minimum 4-hour period. Prior to beginning the test, during the test, and following completion of the test, the gauges were visually assessed for damage and proper units of measurement. The results of the pressure tests indicated that the pipelines did not leak during the tests. Pipe pressure test results are provided in Appendix I.
- For testing of dual-contained force mains, the interior 2-inch or 4-inch force main was pressurized with 50 psi of air pressure and the exterior 4-inch or 8-inch secondary containment pipe was tested with 25 psi of air pressure over a minimum 4-hour period.

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Section 5

System Repairs and Maintenance

AEGL performed gas header line repairs/maintenance. The following repairs/maintenance activities were performed:

- A new 6-inch diameter lateral was installed from EW-107R to EW-114R due to vacuum loss at EW-114R.
- A new 6-inch diameter lateral was installed for EW-156 in order to restore vacuum to the well.
- The 8-inch diameter, off-line condensate sump CS-5 was replaced with a 24-inch diameter, off-line sump. The 4-inch diameter drain line connecting the sump to the adjacent 24-inch header was also upsized to a 24-inch diameter pipe to eliminate problems with condensate retention in the header.
- Condensate sump CS-21 was excavated and the broken flange connections to the 24-inch header were repaired.

5.1 Materials

The components used to repair and maintain the existing Landfill GCCS included the following:

- 4-inch, 6-inch, and 24-inch diameter solid SDR 17 HDPE pipe
- 24-inch diameter flange sets including bolts kits
- Various sizes of HDPE couplings, reducers, tees, and other fittings and appurtenances

5.2 Construction/Installation Methods

Equipment used to perform the GCCS repairs and maintenance included Caterpillar 316E and 320D hydraulic excavators, Caterpillar 725 articulated dump trucks, a Caterpillar D5K track-type tractor, McElroy butt-fusion welding equipment, Friatec electro-fusion welding equipment, and various hand tools.

5.2.1 Lateral Construction/Installation Methods

The general construction/installation methods used to repair and maintain the existing Landfill GCCS were as follows:

- Six-inch diameter SDR 17 HDPE pipe was delivered to the site and stored in a clean area.
- The HDPE pipe was butt-fusion welded on-site by AEGL prior to being connected to the existing Landfill GCCS.
- HDPE pipe was placed in the trenches following completion of the excavation.
 - HDPE pipe was installed to achieve the minimum design slopes of three percent within the limits of waste.
 - Pipe bedding consisted of clean cover soil material removed from the trench excavation.
 - Survey markers were placed at 50-foot intervals along the pipelines, at road crossings, and at fitting locations. The survey markers were removed following completion of the field survey activities.

- Installed pipelines, fittings, components, and road crossings were field surveyed after installation.
 - Locations of the pipelines, components, and appurtenances are provided on the Project Record Drawings in Appendix D.
 - 5-mil x 3-inch underground detectable tape with the words “CAUTION BURIED GAS LINE BELOW” was placed approximately 1-foot above the HDPE pipe during backfilling activities.
- Waste material encountered within the excavated soil was separated from the soil as the trenches were backfilled. The waste material was placed in an articulated dump truck for transportation and disposal at the active working face of the Landfill.
 - Additional soil was obtained from an onsite stockpile to augment the backfill soil, if needed.

5.2.2 CS-21 Construction/Installation Methods

The general construction/installation methods used to repair CS-21 were as follows:

- The condensate sump was excavated to visually observe the sump.
 - The 24-inch diameter flange connections were observed to be broken at their connection to the existing 24-inch diameter header.
- The 24-inch diameter flange connections were unbolted and removed from the sump and the 24-inch diameter header.
- New flange connections were installed on the sump and the 24-inch header.
- The flanges were bolted to reconnect the sump and the 24-inch diameter header.
- The sump was leveled and backfilled with soil from the excavation.

5.2.3 CS-5 Construction/Installation Methods

The general construction/installation methods used to repair CS-5 were as follows:

- The condensate sump was excavated to visually observe the sump and the 4-inch diameter drainage pipe.
- The 4-inch diameter drainage pipe was removed and replaced with 24-inch diameter pipe.
- The 24-inch diameter pipe was tied into the sump.
- The sump was backfilled with soil from the excavation.

5.3 Observations/Tests

The following observations and tests were performed during the above detailed construction activities:

- Pipe, shop-fabricated tees and branch saddles, electro-fusion couplers, elbows, flanges and appurtenances were visually observed to verify there was no sign of damage. No visual damage to the materials installed for the GCCS maintenance activities was observed.
- Backfilling operations were monitored to assure that there were no negative impacts to the new and existing components of the GCCS system.
- Butt-fusion welds for the various pipe sizes were visually observed prior to back-filling the trenches. Brown and Caldwell CQA monitors observed hot plate temperature, fusion pressure, holding times, and welding techniques. The welds were determined to be in conformance with the butt-fusion welding specifications.
- Electro-fusion welds were visually observed to be completed according to the electro-fusion welding specifications.

- Installed lateral pipelines were pressure tested prior to being connected to the existing Landfill GCCS. The pressure test for the lateral pipelines consisted of applying a minimum of 25 psi of air pressure over a minimum 4-hour period. Prior to beginning the test, during the test, and following completion of the test, the gauges were visually assessed for damage and proper units of measurement. The results of the pressure tests determined that the pipes did not leak during the tests. Pipe pressure test results are provided in Appendix I.

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Appendix A: Daily Field Logs

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American Environmental Group, Ltd.

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Brown and Caldwell

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Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Tanner Todia

Date: 1/9/13

Time In: 0900

Time Out: 1500

Weather: 39°F overcast
Pre Con Meeting

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

pipe staging + delivery only today

Contractor/Subcontractors/Visitors:

ABG Drilling, ABG construction

Summary of Work:

0900 pre con meeting w/ ABG, BEL, SCS & Republic
- pipe staging
- drill rig materials staging
- no field work today

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Tanner Todia 1/9/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 1/10/13

Time In: 0700

Time Out: 1800

Weather: 45°F overcast

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

No trenching today

ALB construction staging, using air testing

Contractor/Subcontractors/Visitors:

ALB construction, ALB drilling

Summary of Work:

0700 safety meeting
0745 met w/ Koselnick & Brotherton about CMP locations
0900 drill BW42R
1030 issued new drilling schedule
1210 pressure test 700' 6"
1737 pressure test additional 240' 6"
1800 spoke w/ Republic, need BW302R to be drilled so new haul road can be created
1830 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 1/10/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 1/11/13

Time In: 0700

Time Out: 1800

Weather: downpour rain 65°F
RAIN DAY

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

NEG construction, NEG drilling, Walcott Engineering

Summary of Work:

8700 safety meeting
0830 met w/ Kofelnick; no work in field today, just getting prep to survey BW302R for drilling Saturday so Jan can build road
1700 Jessel on site; obtain coordinates
2100 got approval BW302R drilling depth 71'

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 1/11/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Janet Todaro

Date:

1/12/13 Saturday

Time In:

0700

Time Out:

1700

Weather:

Sunny + 50°F

Extended hours approved

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABO construction, ABO drilling

Summary of Work:

- 0700 arrive on site; safety meeting
- drilling RW302R
- 0800 AER TEST 95' of 12" + 6" stick up for 12" leader extension
- 1200 AER TEST pass
- trenched 100' + install pipe
- all cuttings + garbage sent to active phase by 1130 am
- 1700 call Rick regarding deodorizer trailer & let him know all projects complete

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todaro 1/12/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel: Tony Todio

Date: 1/14/13

Time In: 0700

Time Out: 1800

Weather: rain/snow mix
35°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

site extremely muddy

ARG construction RAIN DAY

ARG Drilling OPERATING

Contractor/Subcontractors/Visitors:

ARG construction, ARG Drilling, Wellnet Engineering to survey (3) 12" header points

Summary of Work:

0700 safety meeting
0715 drill DW45R2; ARG construction scraping 12" header area due to mud/heavy rain last night
1245 complete bore DW55R2; Steve stated he will drill DW323 next since it's 41' + no other compliance issue well is shallow enough to drill
1300 finish + set DW35R2; begin DW323 bore
1413 Wellnet on site to survey 12" header
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Tony Todio 1/14/13

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 1/15/13

Time In: 0700

Time Out: 1730

Weather: Duv/Cst 23°F

Items Worked On:

- ☒ Gas Extraction Wells
☐ Flare/piping installation
☒ LFG Piping
☐ Pressure Testing
☒ Earthwork

- ☐ Combo Wells
☐ Liner Installation
☐ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

ARG Drilling, ARG Construction

Summary of Work:

0700 safety meeting
0730 drill BWH6R
0745 begin trenching 12" header from tie in
point to the street
0837 found temporary flange connection +
continue trenching west
1400 open 12" for flange to flange connection
SCS notified plant
1730 seal area around 12" after installation of
12" & 6" laterals
1730 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Signature of CQA Monitor

Date

Janet Todia 1/15/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Jonat Tadio

Date:

6/16/13

Time In:

0700

Time Out:

1850

Weather:

Overcast & 33F

Items Worked On:



Gas Extraction Wells
Flare/piping installation
LFG Piping
Pressure Testing
Earthwork



Combo Wells
Liner Installation
Liner Repair
Excavation/Trenching
Other

Contractor/Subcontractors/Visitors:

ARC construction, ARC drilling

Summary of Work:

0700 safety meeting
0730 drilling BW49R3 (8" well)
0735 begin lateral trench from 12" header to
BW42R
1347 continue trenching BW42R lateral to
4' depth
BW42 must be abandon below grade per
operations
1850 leave site

Attachments:



Contractor Report
Field Notes
Other:

Signature of CQA Monitor

Date

Jonat Tadio 6/16/13

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 11/17/13

Time In: 0700

Time Out: 1800

Weather: Overcast + 30°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEB Construction, AEB drilling, Willett Engineering

Summary of Work:

0700 arrive on site; safety meeting
0715 drill bore RW325
0730 drag 12" up hill from staging area to
continue extension of 12" header; also
tied in remote lateral run for RW46R
1115 complete bore RW325 + begin bore
RW324
1333 Willett on site to survey
1530 AIR TEST 12" SOR 17 0+95 → 444 well
go overnight
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 11/17/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction
Project No.: 142481

Location: Lorain County II Landfill

BC Personnel:

Bruce Todia
Amanda Gullett

Date: 1/18/13

Time In: 0700

Time Out: 1700

Weather: sunny + 25°F

Items Worked On:



Gas Extraction Wells
Flare/piping installation
LFG Piping
Pressure Testing
Earthwork

☐ Combo Wells
☐ Liner Installation
☐ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

AEG construction, AEG drilling

Summary of Work:

0700 safety meeting
0800 weekly progress meeting
0945 begin drill bore BW315R
0950 contacted SCS to derate the plant to
remove pan blank from morning air test
1000 begin trenching BW45R2
1405 finish bore BW315R + set well
1410 backfill remote well lateral trench
BW45R2
1700 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Signature of CQA Monitor

Date

Bruce Todia 1/18/13

Project: 2013 Lorain II Phase 1 GCCS Construction
Project No.: 142487

Location: Lorain County II Landfill

BC Personnel: Amanda Gullett
Bill Foster

Date: 1-19-13

Time In: 0700

Time Out: 1320

Weather: 35°F

Items Worked On:

- | | |
|--|--|
| ☒ Gas Extraction Wells | ☐ Combo Wells |
| ☐ Flare/piping installation | ☐ Liner Installation |
| ☐ LFG Piping | ☐ Liner Repair |
| ☐ Pressure Testing | ☒ Excavation/Trenching |
| ☒ Earthwork | ☐ Other |

Contractor/Subcontractors/Visitors:

AEG Drilling EW-308R

AEG trenching EW-157R

Summary of Work:

0700 safety meeting
0730 Drilling EW-308R (began at 0630)
0730 trenching EW-~~417R~~ 157R
1020 ~~1000~~ Finish bore EW-157 and set well
1100 Finish drilling EW-308R
1100 Set @ EW-308R
1130 backfill well
~~1140 backfill well complete EW-308R~~
1140 backfill EW-157R complete
1305 backfill EW-308R complete

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Signature of CQA Monitor

Date

Amanda Gullett

1-19-13

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487Location: Lorain County II LandfillBC Personnel: JMAY TodioDate: 11/21/13Time In: 0700Time Out: 1800Weather: DNF 1025 15°F**Items Worked On:**

- ☒ Gas Extraction Wells
☐ Flare/piping installation
☒ LFG Piping
☒ Pressure Testing
☒ Earthwork

- ☐ Combo Wells
☐ Liner Installation
☐ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

NEG construction, NEG Drilling, Wellnet
Engineering

Summary of Work:

0700 arrive on site; safety meeting
0715 drill bore BW307R
0730 begin trenching remote lateral BW302R
0745 AER TEST PASS 250' 6" SD 17 @ 40psi from
Saturday Start time
1310 complete bore BW307R - sit well
1400 complete lateral BW302R to BW301;
complete abandonment BW302; just flush
lateral & well side
1500 NEG requested depth to 120' on Phase II
well schedule; will drill w/ Republic
1830 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other: _____

Signature of CQA Monitor

Date

JMAY Todio 11/21/13

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel:

Bill Foster

Date: 01/22/13 (Tuesday)

Time In: 0700

Time Out: 1730

Weather: 5°-12° Sunny

Items Worked On:

- ☒ Gas Extraction Wells - EW 314 R
- ☐ Flare/piping installation
- ☒ LFG Piping - EW 46R - lateral collector A + En
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching - EW 46R
- ☒ Other - Survey - Refining Phase 2 wells - Phil - to Drills for:

Contractor/Subcontractors/Visitors:

Contractor < AEB Pipe - 6 guys
AEB Drilling - 3 guys

EW-302R

EW-45R2

EW-157

EW-46R + HISS

to set 200.

Visitors - Chris Jaeger, Amanda J., Rick K., Jesse D. & Helmer (mhe)

Summary of Work:

- on site
- safety mtg
- weekly progress mtg
- meet w/ Kevin + Erik to discuss the days workplan.
- AEB trenched for EW-46R + HISS (same trench from owa → 200)
- AEB drills EW-314R to scheduled depth of 101 feet. Backfilled per specs.
- wellnet staked out remaining Phase 2 wells & located Phase 1 piping/wells for EW-45R2, EW-157, EW-46R + HISS (both owa → 200), + EW-302R. Risers pulled & backfilled.
- EW-46R piping finished (2+34)
- wellnet offsite.

EW-46R - 234'

HISS - 200'

Attachments:

- AEB offsite.
- I have the site.

☐ Contractor Report☐ Field Notes☐ Other:

Signature of CQA Monitor

Date

BIN JTV

01/22/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 142487

Location: Lorain County II Landfill

BC Personnel: Janet Todia

Date: 11/23/13

Time In: 0700

Time Out: 1730

Weather: 9°F + overcast

Items Worked On:

- ☒ Gas Extraction Wells
- ☒ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction, ABC Drilling, Weller Engineering (survey 305R)

Summary of Work:

0700 arrive on site safety meeting
 0715 drilling bore BW 306R
 0730 construction trenching road string 313 to 314R
 1400 complete work for BW 306R; begin setting well; construction finished trenching lateral for BW 314R; waiting on Weller survey sub 305R. + 3 moved well locations 9R3, 47R2, 54R2
 1000 drilling off site; will drill BW 50R2 tomorrow
 continue backfilling road crossing lateral 314R to 313
 1730 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 11/23/13

Project: 2013 Lorain II Phase 1 GCCS Construction Project No.: <u>143908</u> Location: <u>Lorain County II Landfill</u> BC Personnel: <u>Bill Foster</u>	Date: <u>01/24/13 (Thursday)</u> Time In: <u>0700</u> Time Out: <u>1730</u> Weather: <u>11°-17° Sunny</u>		
Items Worked On: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> ☒ Gas Extraction Wells <u>EW-50R2</u> ☐ Flare/piping installation ☒ LFG Piping <u>H155 (2100 → Tie-In) 2152</u> ☐ Pressure Testing ☐ Earthwork </td> <td style="width: 50%; vertical-align: top;"> ☐ Combo Wells ☐ Liner Installation ☐ Liner Repair ☒ Excavation/Trenching <u>H155 (2100 → Tie-In)</u> ☒ Other <u>wellheads @ 46R, H155, & 157</u> <u>- Abandon 46, 45 + Vacuum @ 157,</u> </td> </tr> </table>		☒ Gas Extraction Wells <u>EW-50R2</u> ☐ Flare/piping installation ☒ LFG Piping <u>H155 (2100 → Tie-In) 2152</u> ☐ Pressure Testing ☐ Earthwork	☐ Combo Wells ☐ Liner Installation ☐ Liner Repair ☒ Excavation/Trenching <u>H155 (2100 → Tie-In)</u> ☒ Other <u>wellheads @ 46R, H155, & 157</u> <u>- Abandon 46, 45 + Vacuum @ 157,</u>
☒ Gas Extraction Wells <u>EW-50R2</u> ☐ Flare/piping installation ☒ LFG Piping <u>H155 (2100 → Tie-In) 2152</u> ☐ Pressure Testing ☐ Earthwork	☐ Combo Wells ☐ Liner Installation ☐ Liner Repair ☒ Excavation/Trenching <u>H155 (2100 → Tie-In)</u> ☒ Other <u>wellheads @ 46R, H155, & 157</u> <u>- Abandon 46, 45 + Vacuum @ 157,</u>		
Contractor/Subcontractors/Visitors: <u>AEB Pipe - 6 guys</u> <u>AEB Drilling - 3 guys</u> <u>Phone calls - Rick Isac, Janet Todde</u>			
Summary of Work: - on site - safety Mtg - meet w/ Kevin & Erik to discuss the days workplan. - Drilling EW-50R2. Scheduled depth = 77'. - Trenching H155 from STA 2100 → T.C. In. Per specs. - All work is hauled to the washing face. - EW-50R2 drilled to 50', Hit Sledge at ≈ 40', phone call to Janet, who called Chris Jaquet. Set set well on S' of staro base @ depth of 53' (bottom of well). - H155 is tied-in & backfilled, per the specs. - Finish installing & backfilling EW-50R2, per the specs. - Abandon EW-46, EW-45 + Vacuum riser @ EW-157. - Hooked up wellheads @ EW-46R, H155, & EW-157.			
Attachments: ☐ Contractor Report ☐ Field Notes ☐ Other: _____	 Signature of CQA Monitor <u>01/24/13</u> Date		

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 1/25/13

Time In: 0700

Time Out: 1200

Weather: 10°F + snowing

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

construction stopped @ 1200 due to icy slope conditions

Contractor/Subcontractors/Visitors:

ARG construction, ARG drilling

Summary of Work:

0700 arrive on site; safety meeting
0715 drilling BW 305R
0730 construction begins work on 12" header
@ EWH7R connect air force main
1000 construction hit 6" lateral; called SCS
1100 repaired 6" lateral; called SCS to bring
plant back
1200 construction helping drilling w BW 305R
due to icy slopes; construction done for
day

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 1/25/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 1/28/13

Time In: 0700

Time Out: 1130

Weather:

Light mud
43°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching

☒ Other air force main extensions to 890' elev

Contractor/Subcontractors/Visitors:

ARC construction

no excavation; no air monitoring; no drilling

Summary of Work:

0700 arrive on site; safety meeting
0720 speak w/ minor + Shuck; will raise
air force main isolation valves on rock
face to 890'; no other work today; no
drilling
0847 got call from SCS - site excavator down +
they need help raising remote well head for
RW42L
1130 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 1/28/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Jane Tadia

Date: 1/29/13

Time In: 0700

Time Out: 1200

Weather: Wind 55°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction & ARG Drilling on site.
RAIN DAY

NO WORK; weekly progress meeting

Summary of Work:

0700 arrive on site; safety meeting
0800 weekly progress meeting; initiation
of Phase II
1200 leave site after weekly progress
meeting & Republic/ARG Phase II meeting

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Jane Tadia 1/29/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

James Todia

Date: 1/31/13

Time In: 0700

Time Out: 0900

Weather: cold windy
snowy muddy
10°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☒ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

ARB raising wells w/ SCS due to operations equipment being down

Contractor/Subcontractors/Visitors:

ARB construction (skeleton crew)

Summary of Work:

0700 arrive on site; safety meeting
0730 SCS requested ARB assist in raising
BW42R, BW45R2, & BW157
0745 got cost approval from Jager for
ARB to keep skeleton crew on site
site is too muddy for haul trucks; drilling
1 ton stuck in mud
0900 complete emails & leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

James Todia 1/31/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Bill Foster

Date: 02/01/13 (Friday)

Time In: 0700

Time Out: 1730

Weather: 11° - 18° P. Cloudy

Items Worked On:



Gas Extraction Wells

Rig was frozen
+ couldn't drill



Flare/piping installation



LFG Piping



Pressure Testing



Earthwork



Combo Wells



Liner Installation



Liner Repair



Excavation/Trenching



Other - Hauling Soil

Contractor/Subcontractors/Visitors:

- AEB Pipe - 17 guys - No visitors
- AEB Drilling - 2 guys
- Phone Calls - Rick Tease

Summary of Work:

- 0700 - on site - AEB Hauls soil all day.
- 0700 - Safety mtg.
- 0715 - Meet w/ Bob + Erik to discuss the days workplan.
- 0800 - AEB pipe crew trenches 12" header, beginning @ STA 4+24. ^{note per to waiting here.}
- 1000 - Drillers are waiting for pipe to be delivered.
- 1100 - Pipe arrives. Drillers unload pipe.
- 1200 - 12" Header trench is finished + pipe installed. 4+24 → 5+84
- 1230 - 12" Header ~~is~~ hooked up. Drillers decide not to drill.
- 1300 - Pressure test begins @ 10 psi. AEB backfills 12" Header
- 1700 - Pressure Test ends. 10 psi. Test passes.
- 1730 - AEB off site.

Attachments:



Contractor Report



Field Notes



Other:

Bill Foster

Signature of CQA Monitor

02/01/13

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: Foster / Gullett

Date: 2/2/13

Time In: 700

Time Out: 1600

Weather: 10°-20°, snow

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☒ Other - fusing pipe

Contractor/Subcontractors/Visitors:

Pipe crew - 7 men

Visitors - None

Drill crew - 3 men

Phone calls - None

Summary of Work:

700 - onsite safety meeting

730 - meet w/ Eric and Bob to discuss the days work plan

730 - Begin Drilling EW-54R2 scheduled Depth = 74 ft, waste hauled to working face

730 - Begin trenching lateral to EW-49R3, EW-156, H-165, H-175 waste hauled to working face

1045 - Done Drilling EW-54R2.

1215 - Well EW-54R2 installation complete.

1430 - Lateral to EW-156 trenched, installed, hooked up.

1430 - Lateral to EW-49R3, H-165, H-175, trenched, installed to the point where the lateral for EW-156 "y"s off.

1500 - Lateral to EW-156 backfilled.

1530 - All work covered w/ daily soil.

Attachments: 1600 - AEB offsite
1600 - BC offsite

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Jim Gullett

Signature of CQA Monitor

2-2-13

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todro

Date: 2/4/13

Time In: 0700

Time Out: 1800

Weather: Overcast

12°F w/ winter storm advisory
snow/slippery

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG Drilling, ARG construction, Wellert
Engineering (survey)

Summary of Work:

0700 arriving on site; safety meeting
0715 drilling RW152R
0730 excavation of remote lateral RW49R3;
will also run remotes for H16 & H17 (4" laterals)
1315 Drilling called BC; said they had broken
Kelly bars; will set RW152R at 116';
called Doggett to confirm it's ok
1415 set. Sals w/ Wellert for RW47R2 &
missing/damaged ones for phase II;
caught up on all as units
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todro 2/4/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 2/5/13

Time In: 0700

Time Out: 1700

Weather: Overcast

22°F / slippery

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

* AEG Drilling, AEG construction

* Rig is down for major repair; broken Kelly bars

Summary of Work:

0700 arrive on site; safety meeting
0730 AEG construction will help Operations
raise wells + then complete lateral for
BW47R2 (not drilled yet) + will bring the
12" extension + all remotes on line including
horizontals H16, H17, H15, BW15L6, BW49R3
BW49R3
1445 construction raised well BW50R2 due to
sludge pocket/slight settlement
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 2/5/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Tanet Todio

Date: 2/6/13

Time In: 0700

Time Out: 1800

Weather: Sunny 33°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☒ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Rig is fixed

Contractor/Subcontractors/Visitors:

ABC construction, ABC drilling, Wellert
Engineering survey for 12" A/FM, 41R2

Summary of Work:

- 0700 arrive on site; safety meeting
- 0715 begin drill BW 7R2
- 0745 excavate lateral run BW 314R to 12" header
- 0900 excavate lateral run BW 323 to BW 315R to 12" north header
- AIR test pass all Phase I air & fuel main;
- 6" lateral pass BW 314R to BW 313 to 12" header
- replace BW 48R2 & BW 111R; abandon BW 314
- put BW 323 to BW 315R to 12" header on air test
- 1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Tanet Todio 2/6/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Facet Todia

Date: 2/7/13

Time In: 0700

Time Out: 1800

Weather:

cold, wet, med
34°F + sun

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction, AEG drilling

Summary of Work:

- 0700 arrive on site; safety meeting
trench & complete laterals for
- BW 324 to BW 318 (+ 2" pipe each)
- BW 325 to BW 319 to H12
drilled BW 63 R2
- BW 324 & BW 325 lateral runs an AER TEST
overnight
- relocated stakes for BW 128 R2, BW 56 R2, BW 53 R,
& asked Willett to survey Monday
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Facet Todia 2/7/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: James Todio

Date: 2/8/13

Time In: 0700

Time Out: 0800

Weather: Rain + 40°F

Items Worked On:

- | | |
|--|---|
| ☐ Gas Extraction Wells | ☐ Combo Wells |
| ☐ Flare/piping installation | ☐ Liner Installation |
| ☐ LFG Piping | ☐ Liner Repair |
| ☐ Pressure Testing | ☐ Excavation/Trenching |
| ☐ Earthwork | ☐ Other |

Contractor/Subcontractors/Visitors:

no work due to rain + mud

Summary of Work:

RAIN DAY

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Signature of CQA Monitor

Date

James Todio 2/8/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Tamara Todia

Date:

2/8/13

Time In:

0700

Time Out:

1400

Weather:

cold + ice
23°F overcast

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

had to put
dirt to repair
kanaflex

NO excavation just repair of BWWR2 (earth work)

Contractor/Subcontractors/Visitors:

AEO construction, AEO drilling (Jamob)

Summary of Work:

0700 arrive on site; safety meeting
- tie in lateral runs (shut 12" header valve)
- BW325 to 16N + BW319 (restore vac)
- BW324 to 15N + BW318 (vac source) → 2" line
- BW323 to BW315R to BW317 (vac source)
- BW313 to BW314R to BW316 (vac source)
- repaired kanaflex BWWR2 for SCS
- trained new SCS tech to bring wells on
line
1400 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Tamara Todia 2/8/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: Bill Foster

Date: 02/12/13 (Tuesday)

Time In: 0700

Time Out: 1730

Weather: 25°-36° Cloudy/P. Cloudy

Items Worked On:

- | | |
|--|--|
| ☐ Gas Extraction Wells | ☐ Combo Wells |
| ☐ Flare/piping installation | ☐ Liner Installation |
| ☒ LFG Piping | ☐ Liner Repair |
| ☒ Pressure Testing | ☒ Excavation/Trenching |
| ☐ Earthwork | ☐ Other |

Contractor/Subcontractors/Visitors:

AEB Pipe - 7 guys

Phone Calls - Rich Isaac

Visitors - None

Summary of Work:

- 0700 - on site
- 0715 - safety mtg.
- 0730 - meet w/ Kevin & Bob to discuss the day's workplan.
- 0745 - AEB begins trenching for the air & FM from EW-50R to EW-54R2 (120')
^{+ Lateral/Air/FM (20')}
^{from 50R to 54R2}
- 0800 - AEB begins working on the above ground (w/ pressure test) jumper from EW-54R2 to EW-321.
^{needed}
- 0815 - AEB also trench for the lateral from EW-54R2 to EW-54R.
^(57')
- 1200 - AEB installs the lateral from 54R2 to 54R, per spec. Backfills per specs.
- 1300 - AEB hooks up above ground jumper from 54R2 to 321. (264')
- 1500 - AEB install air & FM from 50R to 54R2, per spec. Backfills per specs.
^{+ Lateral/Air/FM from 50R to 54R2}
- 1600 - Begin pressure test on air & FM from 50R to 54R2 + 50R to 54R2
^{+ Lateral from (10')} ^(170')
- 1700 - AEB finishes up
- 1730 - AEB & I leave the site.

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Bill Foster

02/12/13

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

James Todt

Date: 2/13/13

Time In: 0700

Time Out: 1700

Weather: Overcast 35°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ACB construction, Wellnet Engineering to
resurvey moved well locations & CS-5 header

Summary of Work:

0700 arrive on site; safety meeting
0715 ADR TEST Road A/FM SDR2 to BW54R2
200' 6" SDR 17 on staging area
0800 excavate barometric sump on in line
rock header, remove 4" drilling pipe didn't
drop pump but raised air & fuel main
- SC5 has no vacuum available at SDR to tie
into SDR2; asked Jager for permission to run
new lateral to BW321 above grade lateral
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

J. M. Todt 2/13/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Jane Todia

Date: 2/14/13

Time In: 0700

Time Out: 1700

Weather: Overcast - 36F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction

Summary of Work:

0700 arrive on site; safety meeting
0730 spoke w/ SCS; will isolate 1st plant to
fill in BW152R + BW43R2 + abandon 152
0800 got approval from Pitt to fill in BW50R2
to BW54R2 to BW321 6" lateral above
grade
fill in BW43R2 + abandon 43R
ran air + force main only from BW58R2 to
BW43R2 (change in design)
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Jane Todia 2/14/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 2/15/13

Time In: 0700

Time Out: 1600

Weather: Overcast + 28°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction

Summary of Work:

0700 arrive on site; safety meeting
0715 call Janet; got approval to trench
RW50R2 to H185 & to BW321 6" lateral run
above grade to restore road to BW50R2;
will trench to depth of 6' to obtain 3"
grade; (ATR TEST) 6" 240' SDR17
1000 Kotelnick wants ABC to help ops pile
dirt around wells; Ops shut down plant
1400 leave site after backfilling RW50R2
to H185 to BW321

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 2/15/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: Janet Todia

Date: 2/19/13

Time In: 0700

Time Out: 1400

Weather: extremely muggy
+ wet; light rain
then snow

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Rain / Mud Day

Contractor/Subcontractors/Visitors:

REG construction, Wallert Engineering

Summary of Work:

- Weekly Progress Meeting
- Rain / Mud Day
- Survey as built w/ Wallert
- 1400 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 2/19/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: James Todia

Date: 2/20/13

Time In: 0700

Time Out: 1800

Weather: 3°F w/wind
chill cold &
clear

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AET construction

above liner / no excavation in trash

Summary of Work:

0700 safety meeting
0715 camera 24" header + continue to
excavate 24" to view pipe integrity
sump is now locked in 4" let down
pipe (15-5)
24" header has no integrity issues
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Signature of CQA Monitor

Date

James Todia 2/20/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143408

Location: Lorain County II Landfill

BC Personnel: Jamar Todia

Date: 2/21/13

Time In: 0700

Time Out: 1400

Weather: cold + clear
26°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction

above grade/no excavation

Summary of Work:

0700 arrive on site; safety meeting
0815 work w/ SCS to determine why liquid
won't drain to CS5; 4" let down is
vae looked; no further camera
work is needed
1100 run 6" equalization lateral from
BW7 to BW103 to get liquid to drain
through 4" let down to CS5 (above grade)
1400 leave site; liquids falling to sump

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Jamar Todia

2/21/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Loran II Phase 3

Date: 5/7/13

Location: 8 Berlin, OH

Time In: 0700

Time Out: 1730

BC Personnel: Janet Todia

Weather: SUNNY + 70°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

NEG drilling; construction has not
started yet

Phone Calls -

FIRST DAY OF PHASE 3 PRE CON MEETING

Summary of Work:

0700 arrive on site; safety meeting
0733 set up to drill BW128R2; check on
drilling schedule update progress; no'd
OK for BW128R2, BW27R
1415 complete BW128R2; go to Precon
meeting
1530 check out field "add ons" w/ Kevin
after Pre Con
1730 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Janet Todia 5/7/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel: Janet Todia

Date: 5/8/13

Time In: 1100

Time Out: 1730

Weather: Sunny & 73°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG drilling, AEG construction

Summary of Work:

1100 arrive on site; drilling BW27R; safety meeting
1230 BW27R completed; connect temporary tie in for lateral
1300 drill BW51R2 & raise 2" air & force main in active phase
drilling setting up on BW54R2 for tomorrow
1730 completed BW57R2 & leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 5/8/13

Signature of CQA Monitor

Date

130
310
152

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 5/9/13

Time In: 0700

Time Out: 1800

Weather: sunny + 73°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction, AEG Drilling

Summary of Work:

- 0700 arrive on site; safety meeting
0715 PRESSURE TEST PASS; 6" SDR 17 @ 30psi
overnight 130', 310', 152'
- drilling is boring well BW54R2; 20' progress
on the bore
- abandoned H155
- restored vacuum from 46R to 47R2
- complete BW54R2 @ 109' on a scheduled 114'
bore due to sludge
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 5/9/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 5/10/13

Time In: N/A

Time Out: N/A

Weather: Rain + 70°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

Summary of Work:

RAIN DAY
rec'd call @ 0615 from Kevin Skell no
site work today

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 5/10/13

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3 2013

Date: 5/13/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Janet Todia

Weather: sunny & 40°F

Items Worked On:



Gas Extraction Wells
Flare/piping installation
LFG Piping
Pressure Testing
Earthwork

☐ Combo Wells
☐ Liner Installation
☐ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

AEG construction, AEG drilling

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0715 morning meeting w/ scs for day's plan
0800 weekly progress meeting w/ Janet
0905 tie in RW42R to 12" header & raise east
termination riser 12'; raise west termination
riser (now 10" vertical) 6'
- drill RW55R; got 33' on 48' bore; Janet approves
short well
- trench & install 6" RW51R2 to RW54R2
- RW41R got 98' on 11" foot bore approved
by Janet 1800 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Janet Todia 5/13/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Tolia

Date: 5/14/13

Time In: 0700

Time Out: 1800

Weather:

Overcast + 55°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction, ARG Drilling

Summary of Work:

0700 arrive on site; safety meeting
0715 call from drilling @ BW39R2; drill rig
ripped air + fuel main; isolate air + fuel
main w/ valves; drilling move to BW153R
~ tie in BW51R2 to BW54R2 lateral
~ tie in BW55R to vac
~ tie in BW56R2 to vac
~ well recovery BW39R2 tomorrow + double
check location of 3 other points
~ SDS conducted all tie ins
1800 leave site after assessing clean up
for 153R

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Tolia 5/14/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Jonat Todia

Date: 5/15/13

Time In: 0700

Time Out:

1830

Weather:

0.0A/0.05A 72°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction, ARG drilling
Wellnet Drilling

Summary of Work:

0700 arrive on site; safety meeting
0715 spoke w/ minor; re assess well locations
w/ ARG to validate not drilling into
existing piping
0805 drill RW48R2 + RW326
~ tie in & bring 153R on line + RW128R2 - spoke
w/ minor will wait until tomorrow to
allow drilling to get ahead
~ survey all laterals w/ Wellnet &
redo survey notes
1830 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Jonat Todia 5/15/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 5/16/13

Time In: 0700

Time Out: 1800

Weather: sunny + 77°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction, ABG drilling

Summary of Work:

0700 arrive on site; safety meeting
0715 drill RW39R2
0800 tie in RW153R
1000 tie in RW326 / RW48R2
1132 drill TRW4R2
1400 trench RW41R to RW39R2 for lateral
 run to RW159
1500 finish well TRW4R2
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 5/16/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Jonet Todia

Date: 5/17/13

Time In: 0700

Time Out: 2000

Weather: Sunny + 78°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEC construction, AEC drilling, Willett
Engineering

Summary of Work:

- 0700 arrive on site: safety meeting
- drill TRW6R2 to depth of 95' on 120' more
- trench lateral EW39R2 to EW159
- drill EW111R to depth
- tie in TRW6R2 + tie in lateral run
EW41R to EW39R2 to EW159
- lost pump in TRW6R2 + EW153
- survey rises w/ Willett & end of
the day
- 2000 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Jonet Todia 5/17/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 5/18/13

Time In: 0700

Time Out: 1500

Weather: sunny & 76°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction, ABG drilling

Summary of Work:

0700 arriving on site; safety meeting
0715 drill EW12SR2
0800 trench air & force main from RW12SR2
to RW112R to RW113R to RW114R
1500 complete trench & lay dual contained
force main; leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 5/18/13

Brown AND Caldwell

Daily Field Report

Project: Wash II Phase 3

Date: 5/20/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1830

BC Personnel: Ismael Todia

Weather: sunny + 85°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction, ARG drilling

Visitors -

Phone Calls -

Summary of Work:

0700 arrived on site; safety meeting
 0720 drill BW115R2
 0800 weekly progress meeting
 0850 cover area from rain BW115R2 to 112R to
 113R to 114R w/ soil
 repair hole seal BW111R & BW111R abandon
 hole (will complete tomorrow)
 repair hole TEWTR2
 1255 clear + prep test for liner repairs
 1830 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Ismael Todia 5/20/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

page 1

Project: Lebanon II Phase 3

Date: 5/21/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1900

BC Personnel: Janet Todia

Weather: Overcast 70°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner installation
- ☒ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction, AEG drilling

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
 0715 drill RW15R - yg problems (back tomorrow)
 0800 shut & seal 1st for liner repair
 0830 repair bore seal RW11R & abandon
 bore RW11R so AEG can repair berm
 pipe rain / T clearing
 - finish bore seal TEW7R2
 - repair bore seal RW326 & RW11R; restore vac to
 bring RW326 on line
 - bore seal RW15R2 repair (force main & air
 dual contained)

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 5/21/13

Signature of CQA Monitor

Date

Project: LO1200 II Phase 3Date: 5/21/13 (CON'T)Location: Oberlin, OHTime In: 0700Time Out: 1900BC Personnel: Janet TodiaWeather: Sunny + 84°F

Items Worked On:

- ☒ Gas Extraction Wells
☐ Flare/piping installation
☒ LFG Piping
☐ Pressure Testing
☒ Earthwork

- ☐ Combo Wells
☐ Liner Installation
☒ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

NEC construction, NEC drilling

Visitors -

Phone Calls -

Summary of Work:

(CON'T)
Trench 22/115R2 to 22/114R to 22/107R)
+ place 6" in trench w/ survey wires
- call Wellert for survey tomorrow
many wires
- will air test tomorrow
1900 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Janet Todia 5/21/13
Signature of CQA Monitor Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 5/22/13

Location: Obelisk, OH

Time In: 0700

Time Out: 1830

BC Personnel: Josh Rodia

Weather: sunny + 83°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

Drill Rig Own Today; Repair Rig
NEG construction; NEG Drilling (fixing rig)
Willert Engineering (survey)

Summary of Work:

0700 arrive on site; safety meeting
 0730 trench final run of lateral for
 RW114R to BW187R
 1000 tie in/abandonment TEW1R2
 1200 tie in/abandonment BW125R2
 -trench lateral (8") from BW111R to
 BW110R
 -Willert on site to clean up survey risers
 -initiate pressure test on 2x4 fm and 2" i
 as + 4" lateral BW15R2 to (RW114R to RW107)
 -leave site 1830

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Josh Rodia 5/22/13
 Signature of CQA Monitor Date

Brown AND Caldwell

Daily Field Report

Project: Adrian II Phase 3

Date: 5/23/13

Location: Obellin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Janet Todia

Weather: Overcast + 60°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

No bore seal repairs today

Contractor/Subcontractors/Visitors:

REG construction, ABG Drilling

Visitors -

Phone Calls -

Summary of Work:

- 0700 arrive on site; safety meeting
- 0715 drill EW135R
- 0730 rec'd permission from Jagged to use branch saddle EW27R tie in
- abandon w/ butt flush both well + new steel EW114; tie in EW114R to manure on new 6" line + cut out T for remote well head
- tie in 6" lateral run EW115R2 to (EW114R to EW107R)
- EW135R 98' on 120' scheduled bore (sludge)
- pressure test 8" lateral EW111R to EW27R
- 1700 RAIN; leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 5/23/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908.410

Location: Lorain County II Landfill

BC Personnel:

Janet Todio

Date: 5/24/13

Time In: 0700

Time Out: 1000

Weather: Overcast - 43°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

RAIN DAY

Contractor/Subcontractors/Visitors:

Weller Engineering

Summary of Work:

no construction or drilling today, but
had to wait to survey BW304R +
BW313R

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todio 5/24/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 5/28/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1000

BC Personnel: Janet Todia

Weather: AVG 62°F + 71°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

MUD DAY

Contractor/Subcontractors/Visitors:

ARB construction & ARB drilling

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; no work today; mud day
0800 weekly progress meeting

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Signature of CQA Monitor

Date

Janet Todia 5/28/13

Brown AND Caldwell

Daily Field Report

Project: Lolain II Phase 3

Date: 5/29/13

Location: Obertin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Just Todia

Weather: sunny + 77°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner installation
- ☒ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

drilling Kelly bar issues

Contractor/Subcontractors/Visitors:

ABG construction, ABG drilling

Visitors -

Phone Calls -

Summary of Work:

- 0700 arrive on site; safety meeting
- 0715 drill BW423
- 0720 call SCB to begin isolation for tie in at 24" x 8" @ 27R; ask Dan B to move well fence by 304R + 313R to build benches
- liner repairs on usual BW135R, BW27R, 114, BW128R
- drill BW119R; will use the BW119S lateral for vacuum tie in for BW119R (stop at 115')
- box seal repair BW423 first thing tomorrow
- 1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Just Todia 5/29/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Colin II Phase 3

Date: 5/30/13

Location: Carlin, NT

Time In: 0700

Time Out: 1800

BC Personnel: Jack Todis

Weather: Sunny 93°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

NO DRILLING TODAY

Contractor/Subcontractors/Visitors:

AEG Construction; Drilling is on site,
but fixing up

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
 0715 ask SCs to isolate for tensions of
 BW135R, BW128R2 + BW119R
 0800 tension test shear + pull
 - bore seal repairs + air/force main; BW128R2, BW119R,
 BW48R2 + BW119
 - trench, air + force main from BW119R to
 isolation valve near 5R2 + lay in place
 4"x8" dual contained + air line (not tied
 in yet)
 - 1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Jack Todis 5/30/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Corbin II Phase 3

Date: 5/31/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Janet Todia

Weather: Sunny & 88°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction, ARG drilling

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0800 tension test pass
- dual contained force main air BWSR3
- drill BW102R
- drill BW313R
- dual contained force main, air line & boots
TRW6R2 + isolation valves near BW125R2
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 5/31/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase 1 GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

James Todia

Date: 6/3/13

Time In: 0700

Time Out: 1800

Weather: overcast 60°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG Construction, ARG Drilling (last day)

Summary of Work:

- 0700 arrive on site; safety meeting
- drill BW304R - complete
- tie in & bore seal repair RW102R
- trench 4"x8" dual contained & 2' air from isolation valve at EW5R2 to EW93R
- install pumps BW112R, BW113R, BW9R3, BW54R2, BW170; needed 4x8" reducers for 3" well heads BW112R & BW113R
- 1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

James Todia 6/3/13

Brown AND Caldwell

Daily Field Report

Project: Lot 2 in Phase 3

Date: 6/14/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Tamara Todia

Weather: Sunny & AF

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Drilling Demos

Contractor/Subcontractors/Visitors:

ARG construction, Wellnet Engineering

Visitors -

Phone Calls -

Summary of Work:

- 0700 arrive on site; safety meeting
- 0800 weekly progress meeting
- 0815 trench 6" lateral from 313R to BW304R
- survey w/ Wellnet all as built
- 1400 complete finish work 6" lateral
- 313R to 304R + call SCs to tune wells
- install pump in BW03R2; fix broken discharge line in pump/well BW115R
- 1800 left site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Tamara Todia 6/14/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 6/5/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Just Todia

Weather: Sunny +70°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction, Wellert Engineering

Visitors -

Phone Calls -

Summary of Work:

- 0700 arrive on site; safety meeting
- excavate trench to restore vac BW153R to 12" wet end termination riser
- abandon BW111
- 1436 lay 6" lateral in trench + extend 12" + cut out temporary 10" riser on header end
- 1500 Wellert on site to survey
- 1800 leave site after completion of survey + tie in BW153R to 12"

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Just Todia 6/5/13

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 6/16/13

Location: Oberlin, OH

Time In: 0700

BC Personnel: Janet Todda

Time Out: 1500 Raining

Weather: Rain + 70°F

Items Worked On:



Gas Extraction Wells
Flare/piping Installation
LFG Piping
Pressure Testing
Earthwork

☐ Combo Wells
☐ Liner Installation
☐ Liner Repair
☒ Excavation/Trenching
☐ Other

Contractor/Subcontractors/Visitors:

AKC Construction, Weller Engineering

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting; will wait for rain to pass
0850 begin to excavate BW157 to restore vac via BW45RZ
0930 call SCS to isolate 12" line
1000 survey w/ Weller
1230 complete BW157 to BW45RZ & call SCS
begin excavate air force main from BW158R to BW169
1500 leave site

Attachments:

- ☐ Contractor Report
☐ Field Notes
☐ Other:

Signature of CQA Monitor

Date

Janet Todda 6/16/13

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 6/7/13

Location: Obertlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Janet Tadia

Weather: rain + 60°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☒ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARG construction, I

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0720 dig to locate air/force main tie in for
upair @ stake location; found CMP @ 8'
POL
0900 separate air + force main run SW169 to
SW158R but won't drop pump in SW169 until
tomorrow
- trench + lay pipe in place SW93R to SW119R air +
force main (2, 4, 8")
- trench + lay pipe in place SW228 (3" well) to
isolation valves
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Tadia 07/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 10/10/13

Location: Obislin, OH

Time In: 0700

Time Out: 0915

BC Personnel: Janet Todia

Weather: Sun + 78°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

RAIN DAY

Contractor/Subcontractors/Visitors:

ARG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0915 construction called off the day due
to rain

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

[Signature]

10/10/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: LOZIN II Phase 3

Date: 6/11/13

Location: Oaklin, OH

Time In: 0700

Time Out: 0900

BC Personnel: Tyler Todia

Weather: DNV/CDSK +79°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

MUD DAY

Contractor/Subcontractors/Visitors:

NRG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site, safety meeting
MUD DAY no work
0800 weekly progress meeting

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Tyler Todia 6/11/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 4/12/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Janet Todia

Weather: humid + 80°F

Items Worked On:

- ☒ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☒ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0715 excavate to repair bore seal BW227
(add on from SCS) + boot @ BW5R2
0830 excavate to tie in air force main to
isolation valves to run from BW119R to
BW43R
- install pumps 119R, BW43R + BW169
- PRESSURE TEST in place 2" air, 4" & 8" force
main BW119R to BW43R to isolation valves
and BW228 to isolation valves in place
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 4/12/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Kolzin II Phase 3

Date: 6/14/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1845

BC Personnel: Janet Todia

Weather: Sunny + 66°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AREG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 tie in air + force main RW228 to
below grade tie in point
1000 excavate CS5, cut 2" air + 2" force main +
cap, remove 8" valve stem sleeve, remove
old sump + fabricate new sump w/
stilling pipe
hit air line (held air off - call site + SCS)
1845 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Janet Todia 6/14/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lafayette Phase 3

Date: 6/15/13

Location: Berlin, OH

Time In: 0700

Time Out: 1500

BC Personnel: Janet Todia

Weather: Sunny 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AREG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 down to 25-5 excavation + drain leachate
into secondary containment @ tanks
1000 tension first sheet + pull pass
- complete excavation + install new pump
- call SCs to bring them back on line
- leave 24" shotcrete coupled open in
case of leaks; liquid level in sump @
13' where pump is set
- 1500 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 6/15/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 4/18/13

Location: Oberlin, OH

Time In: 0700

BC Personnel: Janet Todia

Time Out: 1600

Weather: sunny + 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☒ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEO construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site - safety meeting
0715 begin excavation of CS-21 to make
repair
0800 tension test shear & pull
0824 repair 30x30' box seal patch + extrusion
weld 24" coupler notch and
excavate CS-21 for repair + fill back
in due to repair severity; save for
tomorrow
1600 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Signature of CQA Monitor

Date

Janet Todia 4/18/13

Brown AND Caldwell

Daily Field Report

Project: Linnett Phase 3

Date: 6/18/13

Location: Dublin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Tina Todia

Weather: Sunny + 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☒ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEC construction, Willet Engineering

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0800 weekly progress meeting
0815 completing CS-5 test ports @ 24" + ; weekly meeting)
0900 survey w/ Willet
- complete & cover CS-5
- prep & fuse 6" for north horizontal collector
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Tina Todia 6/18/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: LO1267 II Phase 3

Date: 6/19/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Janet Todia

Weather: sunny + 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☒ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0800 PRESSURE TEST PASS 2" SDR19 900' &
4" SDR17 720'
0900 expanded CS-21
1310 Brotheron stated compactor is in the shop & therefore needs to be repaired & will come across road tomorrow no later than 12pm when minor will close the road to active phase for installation of CS-21
1700 Tarp area & leave site for the day

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 6/19/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Worship II Phase 3

Date: 6/20/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Janet Todia

Weather: Sunny 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEB construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 finish excavation of CS-21; pump reservoir
on old CS-21 from end cap to invert is 16';
call request to ask reservoir length; 10'
is good
0945 fab up new sump CS-21; turn on
deodorizer unit
- all day fabrication of sump CS-21
1700 install new sump CS-21 + bolt flanges
turn on deodorizer unit after tarping
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 6/20/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lolain II Phase 3

Date: 6/21/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Tanet Todia

Weather: sunny + 85°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 backfill CS-21 & install air & force
main to pump; bring site back full
on line
1215 separate tie in point from west side of
road to EW39R2 for air & force main
repair
1700 install survey risers & leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Tanet Todia 6/21/13

Brown AND Caldwell

Daily Field Report

Project: Lolain II Phase 3

Date: 6/22/13

Location: Deerlin, OH

Time In: 0700

Time Out: 1500

BC Personnel: Tanet Todia

Weather: Sunny + 83°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEC construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 begin road crossing excavation by
barricade / divert truck traffic to repair
air force main from west side of
road crossing to isolation valves
1000 road crossing cut @ 5' & install CMA (400') +
back & continue to compact & haul dirt
- finish grading CS-21 & replacing berms &
hauling dirt
1500 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Tanet Todia 6/22/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Korwin II Phase 3

Date: 6/24/13

Location: Okeville, OH

Time In: 0700

Time Out: 1745

BC Personnel: Janet Todia

Weather: windy 88°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
 0742 continue w/ air & force main repair
 BW39R2 to road crossing & road crossing
 to isolation valves
 1100 pull air & force main through road
 xing
 1345 complete connection of 90's to air &
 force main isolation; complete repair
 1415 backfill & load dirt CS-21
 1745 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 6/24/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lalita II Phase 3

Date: 6/25/13

Location: Obellin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Joset Todia

Weather: sunny + 79°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ABC construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0800 weekly progress meeting
0915 excavate rock horizontal collector from
H14 toward H12
1400 met w/ BPR for pump installation
demo
1700 complete horizontal collector to
H13; T & burns (severe) + leave site
after covering trench

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lorain II Phase 3

Date: 6/26/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1700

BC Personnel: Jonat Todia

Weather: sunny + 86F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0720 operate 58R air force main to trouble
short track pressure blockage @ BW43R2
(LTs are fine - no pinch + pump works fine)
1000 operate 6" lateral to restore vacuum
to BW9R3 via BW119R vac source per
request of SCS yesterday
1700 complete backfill of lateral trench +
call SCS
1700 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Jonat Todia 6/26/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lolain II Phase 3

Date: 6/27/13

Location: Oberlin, OH

Time In: 0700

Time Out: 0800

BC Personnel: Tanet Todia

Weather: MUD + RAIN 78°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

*NO WORK
MUD DAY*

Contractor/Subcontractors/Visitors:

Visitors -

Phone Calls -

Summary of Work:

*0700 arrive on site, AEG calls it -
MUD DAY*

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

John M. [Signature] 6/27/13

Brown AND Caldwell

Daily Field Report

Project: Worain II Phase 3

Date: 7/11/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1730

BC Personnel: Janet Todia

Weather: overcast - 70°F
Rain

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 building benches & bringing in dirt
for rock horizontal collector
- install pump BW48R to depth of 86'
- install pump BW228 (6" x 8" reduce) to depth of
103'
- excavate to locate air force main BW316 &
make tie ins - no pump install for
that today due to rain
1730 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other: _____

Janet Todia 7/11/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: Lagoon II Phase 3

Date: 7/2/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1800

BC Personnel: Janet Todia

Weather: Sunny + 75°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☒ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☒ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

AEG construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 begin w/ continuation of north horizontal collector
0800 weekly progress meeting
0921 install pump RW316 to 52' depth
1447 complete horizontal excavation complete w/ sump reservoir placement
- place 6" sump; stacked T configuration
- bedded H12 to north 90' w/ stone to assist in denaturing the slope
1800 leave site

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 7/2/13

Project: Lolita II Phase 3Date: 7/13/13Location: Obello, OHTime In: 0700Time Out: 1600BC Personnel: Janet TodiaWeather: sunny 83°F
humid

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☒ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ALC construction, Weller Engineering

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
- tie in north horizontal collector at H14 & H12
- tie in air & force main lines to the new
6" sump reservoir
- survey w/ Weller & remove survey
risers
1600 leave site while crew is cleaning
up & doing finish work

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 7/13/13

Signature of CQA Monitor

Date

Brown AND Caldwell

Daily Field Report

Project: LD13 in II Phase 3

Date: 7/8/13

Location: Oberlin, OH

Time In: 0700

Time Out: 1600

BC Personnel: Janet Todia

Weather: Sunny + 80°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping Installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☒ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARL Construction

Visitors -

Phone Calls -

Summary of Work:

0700 arrive on site; safety meeting
0730 earth work; dozer work; pick up pipe
on site; pack fusion equipment for demob
- obtain site work logs from Kostelnick
- clean up BL13R2, BL228 run, BL119R
run, & aging area pipe
1600 leave site; beginning to rain

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Signature of CQA Monitor

Date

Janet Todia 7/8/13

Brown AND Caldwell

Daily Field Report

Project: 2013 Lorain II Phase ³ GCCS Construction

Project No.: 143908

Location: Lorain County II Landfill

BC Personnel:

Janet Todia

Date: 7/16/13

Time In: 0800

Time Out: 1500

Weather: hot & humid

88°F

Items Worked On:

- ☐ Gas Extraction Wells
- ☐ Flare/piping installation
- ☐ LFG Piping
- ☐ Pressure Testing
- ☐ Earthwork

- ☐ Combo Wells
- ☐ Liner Installation
- ☐ Liner Repair
- ☐ Excavation/Trenching
- ☐ Other

Contractor/Subcontractors/Visitors:

ARB construction

Summary of Work:

FINAL WALK THROUGH

- passed w/ minor larger work requests Bob minor will complete today

Attachments:

- ☐ Contractor Report
- ☐ Field Notes
- ☐ Other:

Janet Todia 7/16/13

Signature of CQA Monitor

Date

American Environmental Group, Ltd

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American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/9/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Clear	
START TIME	7:00AM
STOP TIME	3:00PM

COMMENTS (Description of Work Order Completed):

Today we arrived on site to start job. Once we got there we unloaded job trailer and flat bed. Once trailers were unloaded the trucks came in with our pipe and fittings. So we went and got with Rick to see were he wanted us to stage the pipe and fittings. Once trucks were unloaded we then stage our machines and started fusing 2" pipe, 3" pipe and 6" pipe. While we were fusing pipe the water truck and a cat 320 was delivered on site so we unloaded off trucks and went back to fusing pipe. Also while were fusing pipe we had our Pre construction meeting at 9:00am. We fused up 1400ft of 3" and 2" pipe and also fused up 1000ft of 6" pipe and also started fabbing up 6" risers. We also went through all pipe fittings and stacked them up and did a inventory on all new pipe fittings. We then wrapped things up and left for the day.

Joe Merbig 1/9/13
CLIENT REPRESENTATIVE DATE

Bob Minor 01/09/2013
AEGL SUPERINTENDENT DATE

Jack A Tedia CQA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/10/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went over and started fusing pipe. We fused up 1200ft of 6" pipe, 400ft of 2" and 3" pipe. We also built 6" laterals and put on air test. We put air test on the 6" pipe at 40 PSI for 4hrs. Air test was passed by Janet the QC. We also fused up 12" tees reduced all the way up to 6" for risers that's going on the header. Then the truck with our 12" pipe that ISCO forgot to send came in so we unloaded it and then fused all 720ft together. Once all pipes were fused together we unloaded trucks and clean tracks on the equipment. Once we finished that we wrapped things up and left for the day.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/11/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Rain	
START TIME	7:00AM
STOP TIME	9:00AM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety and then it started raining. So while Bob and Kevin went up and talk to Rick the landfill manager to see if he wanted us to work in the rain we clean up the job trailer and repaired anything that needed fixed. After we finished fixing everything Cat came in with our dozer. Once dozer was unloaded they came and got the water truck and the water pump that Rick said we didn't need for the job. Once we loaded up the water pump and hoses we wrapped things up and left for the day.

John A. Todia 1/11/13
CLIENT REPRESENTATIVE DATE
John A. Todia COA
NAME & TITLE

Bob Minor 01/11/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/12/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: # 12" Header	PIPE DIA. 12"
VALVE STEMS:		STATION: 0+00 to 0+96	LINEAR FT. 96'
LAND-TEC WELLHEADS:		:	TRENCH DEPTH 5' to 7'
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
WEATHER & TIME INFORMATION		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS: muddy/sloppy		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
START TIME 7:00AM		LATERAL: # 12" Header	PIPE DIA. 3"
		STATION: 0+00 to 0+06	LINEAR FT. 6'
		RISER HEIGHT: 9'	TRENCH DEPTH 5' to 7'
STOP TIME 5:30PM		AIR: # 12" Header	PIPE DIA. 2"
		STATION: 0+00 to 0+06	LINEAR FT. 6'
		RISER HEIGHT: 9'	TRENCH DEPTH 5' to 7'

COMMENTS (Description of Work Order Completed):

Today we started the morning with our safety meeting and then went up on the hill and started trenching on the 12" header. While we were trenching on the header we put air test on the the 12" pipe that we are installing today. We put air test at 10psi for 4hrs. Once air test was on we then got with Janet the QC and she checked and passed air test. We then went up to the tie in point and unbolted blind off of the existing flange and then bolted up 12" flange to the existing flange. We also installed a 12x6 tee riser for EW-42R at station mark 0+90 and also put a 12" flange with a blind on it at 0+96. After pipe was in trench and tied in we then shot pipe in at 3% or more grade so we started hauling dirt and backfilling trench line. We also started the 2" air and 3" forcemain at station mark 0+90 for 6" lateral going to EW-42R. We also put survey risers at every 50ft mark and fittings. Once we backfilled around tie in point the site asked us if we could rise the cleanout riser by the 12" tie in. So we welded 12" flanges on a 26ft piece of 12" pipe. We then bolted a blind to one end of the 12 spool. We then unbolted 12" blind from the existing 12" cleanout riser and extended the clean out riser 26ft up in the air. Once we finished bolting up the 12" flanges we put dirt around cleanout to help support the cleanout riser. Once backfilling was done we cleaned out tracks on equipment and then wrapped things up and left for the day.

Bob Miroc 1/12/13
CLIENT REPRESENTATIVE DATE
Bob Miroc CQA
NAME & TITLE

Bob Miroc 1/12/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/13/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

COMMENTS (Description of Work Order Completed):

Today we didnt work

Justin Miller 1/13/13
CLIENT REPRESENTATIVE DATE
USPA Todia CQA
NAME & TITLE

Bob Minor 1/13/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/14/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
WEATHER & TIME INFORMATION		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
DAILY CONDITIONS: Sloppy/Muddy		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
START TIME 7:00AM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
STOP TIME 9:00AM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact of all the rain that we got on Sunday. However Bob stayed on site and worked on the dozer so we could work tomorrow.

Justin Kroll 1/14/13
CLIENT REPRESENTATIVE DATE

Bob Miro 1/14/2013
AEGL SUPERINTENDENT DATE

Tom R. Tisdale CPA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/15/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: # 12" Header	PIPE DIA. 12"
VALVE STEMS:		STATION: 0+96 to 3+40	LINEAR FT. 244'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3' to 5'
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: # 12" Header	PIPE DIA. 3"
		STATION: 0+06 to 2+50	LINEAR FT. 244'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # 12" Header	PIPE DIA. 2"
		STATION: 0+06 to 2+50	LINEAR FT. 244'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

Cold/Muddy

START TIME 7:00AM

STOP TIME 7:00PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up and started trenching on the 12" header. We started by digging up the 12" flange with blind that we installed on Saturday. Once we exposed flange we the started trenching up the hill. While we were trenching we fused up a stringer of 12" pipe with 12X6 tees for laterals EW-45R2 and EW-157. After we finished building stringer we then put pipe in trench line and unbolted up the blind and put a pan blank in so we can do a air test in the future. Once we finished bolting the 2-12" flanges together we then shot in pipe it all had 3% or more grade so we then installed the 2" air and 3" forcemain lines in the same trench with the 12" header. We installed 12x6 tee and also 2" and 3" tees for EW-45R2 at station mark 2+39. We also installed 12x6 tee and 2" and 3" tees at station mark 2+99 for lateral going to EW-157. Once all pipes were installed we then started hauling dirt and backfilled trench line. We set survey risers every 50ft mark and fittings. We also rolled out caution tape down trench line. Once backfilling was all done we clean out all tracks on the equipment and then wrapped things up and left for the day.

Tom A. Todia 1/15/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/15/2013
AEGL SUPERINTENDENT DATE

Tom A. Todia CA
NAME & TITLE



**American
Environmental
Group Ltd.**

AEGL DAILY DIARY

DATE: 1/16/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	1	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-42R	PIPE DIA. 6"
		STATION: 0+00 to 1+46	LINEAR FT. 146'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-42R	PIPE DIA. 3"
		STATION: 0+00 to 1+46	LINEAR FT. 146'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # EW-42R	PIPE DIA. 2"
		STATION: 0+00 to 1+46	LINEAR FT. 146'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then loaded up trucks and trenched 6" lateral to EW-42R. Once lateral was trenched we put 6" pipe in trench line. Once pipe was in trench we tied into EW-42R with a 6" tee for a down slope well. We had a 6" 90 riser at the 12" header riser and the 6" tee was at station mark 1+46. Once 6" pipe was tied in to EW-42R we shot pipe in it all had 3% or more grade so we then put the 2" air and 3" forcemain in the same trench as the 6" lateral. We had 90 elbow pointing down to EW-42R from the 12" header pipe. We then put 90 risers for the air and forcemain at station mark 1+46 for EW-42R. Once all pipes were in the ditch we started hauling dirt and backfilling. We set survey risers every 50ft mark and fittings. We also ran caution tape down trench line. Once backfilling was done we unloaded trucks and cleaned out tracks on all equipment. We then wrapped things up and left for the day.

Janet A. Radia 1/16/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/16/2013
AEGL SUPERINTENDENT DATE

Janet A. Radia
NAME & TITLE



American
Environmental
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AEGL DAILY DIARY

PROJECT NAME:

Lorain County Landfill

CLIENT/PROJECT#

202-13-100

DATE:

1/17/2013

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: # 12" Header	PIPE DIA. 12"
VALVE STEMS:		STATION: 3+40 to 4+94	LINEAR FT. 154'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3' to 5'
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: # 12" Header	PIPE DIA. 3"
		STATION: 2+50 to 4+04	LINEAR FT. 154'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # 12" Header	PIPE DIA. 2"
		STATION: 2+50 to 4+04	LINEAR FT. 154'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Cold	
START TIME	7:00AM
STOP TIME	5:00PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then loaded up trucks and started trenching on the 12" header. While we were trenching we brought up a stringer of 12" pipe and welded in a 12x6 tee riser for EW-46R. Then once we had enough room we did a ditch weld with the 18" machine where we had to cut the pipe and buried. After ditch weld was done we went over and put a 12" flange at the end of the trench so we can put air test on 12" pipe. Once all the 12" pipe was on the bottom of the trench we then shot pipe in it all had 3% or more grade on it so we the put 2" air and 3" forcemain in the same trench as the 12" header pipe. We installed a 12x6 with 2" air and 3" force main tees at station mark 4+25. We also put a 12" flange with blind at station mark 4+94. After all pipes were in trench line we hauled dirt and backfilled trench line. The surveyor came in today and shot all riser pipes and what we put in trench line today. While we finished backfilling trench we put air test on 12" pipe over night at 10 psi. Janet the QC checked air test and will pass it first thing tomorrow morning. We then cleaned out tracks on equipment and unloaded trucks. After trucks were unloaded we wrapped things up and left for the day.

John A. Tadi 1/17/13
CLIENT REPRESENTATIVE DATE
John A. Tadi CAA
NAME & TITLE

Bob Minor 1/17/2013
AEGL SUPERINTENDENT DATE



American
Environmental
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AEGL DAILY DIARY

DATE: 1/18/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-45R	PIPE DIA. 6"
		STATION: 0+00 to 1+00	LINEAR FT. 100'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
WEATHER & TIME INFORMATION		LATERAL: # EW-45R	PIPE DIA. 6"
		STATION: 1+00 to 1+76	LINEAR FT. 76'
		RISER HEIGHT:	TRENCH DEPTH 5' to 7'
		FORCEMAIN: # EW-45R	PIPE DIA. 3"
DAILY CONDITIONS: Cold		STATION: 0+00 TO 1+76	LINEAR FT. 176'
		RISER HEIGHT:	TRENCH DEPTH 3' to 7'
START TIME 7:00AM		AIR: # EW-45R	PIPE DIA. 2"
STOP TIME 5:00PM		STATION: 0+00 to 1+76	LINEAR FT. 176'
		RISER HEIGHT:	TRENCH DEPTH 3' to 7'

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and was going to start trenching on 6" lateral going to EW-45R. However the site had moved there tippers to the west where we had a path made for our trucks to park and we can not park on the rock that they laid down for the tippers so we had to make a new path for our trucks. Once we made a new path for our trucks we started trenching on 6" lateral. While we were trenching we brought up pipe from the bottom. We then went over and exposed where we had a 12" pan blank in for air test. Once air test was passed and we got the ok we pulled pan blank out and rebolted up the 12" flange connection. After trench was dug we then put 6" pipe in trench. We then shot in pipe at 3% or more grade so we then put 2" air and 3" forcemain and fused in pipe to the tees on the 12" header. We then went down to EW-45R and cut well and then installed a 6" tee and tie in 6" lateral for a down slope well. We also put 2" and 3" 90 risers at EW-45R. After we had all pipe in trench line we then started hauling dirt and back filling trench line. We set survey risers every 50ft and fittings. We also rolled caution tape down trench line. Once we finished back filling trench line we then cleaned out tracks on all equipment and unloaded trucks. Once trucks were unloaded we wrapped things up and left for the day.

Note: Kevin aslo went to the progress meeting this morning

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/19/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-157	PIPE DIA. 6"
		STATION: 0+00 to 0+23	LINEAR FT. 23'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-157	PIPE DIA. 3"
		STATION: 0+00 to 0+23	LINEAR FT. 23'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # EW-157	PIPE DIA. 2"
		STATION: 0+00 to 0+23	LINEAR FT. 23'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
Clear/Cold	
START TIME	7:00AM
STOP TIME	1:45PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and started trenching on 6" lateral for down slope well EW-157. While we was trenching we got all pie ready to put in trench line. Once we was done trenching we then started installing the 6" lateral. We put a 6" 90 risers at station mark 0+00 by the 12" header and we then tie in lateral to the existing well EW-157 with a 6" tee. We then shot in pipe at 3% or more grade so we then installed the 2" air and 3" force main in the same trench as the 6" lateral. We fused pipe to the 2" and 3" tee that we installed with the 12" header. We then went down by EW-157 and installed 2" and 3" 90 risers for EW-157. Once we had all pipe in trench we then back filled trench line. We also hauled dirt all day for the next trench line. While we finished backfilling we brought up all pipe stringers and staged them up on top so we don't have to deal with site traffic anymore. We then took measurements for the next trench line and fused up pipe and put on air test at 40psi and we left it until monday. We then cleanout tracks on equipment and unloaded trucks then left for the weekend.

Paul Todia 1/19/13
CLIENT REPRESENTATIVE DATE
Paul Todia CSA
NAME & TITLE

Bob Minor 1/19/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/20/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
WEATHER & TIME INFORMATION		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
DAILY CONDITIONS:		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
START TIME _____		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
STOP TIME _____		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we didnt work

Joe A. Todia 1/20/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/20/2013
AEGL SUPERINTENDENT DATE

Joe A. Todia CEA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/21/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	Ew-301 and Ew-302	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HEADER: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
WEATHER & TIME INFORMATION		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
DAILY CONDITIONS: Cold/snow		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
START TIME 7:00AM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
STOP TIME 5:15PM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
LATERAL: # EW-302		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
STATION: 0+00 to 1+19		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
RISER HEIGHT: 6'		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
AIR & FM: #		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
STATION:		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
RISER HEIGHT:		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and started trenching on 6" lateral from EW-302 down to EW-301. While we were trenching on lateral we prep up pipe to go in trench. Once we finished digging on lateral we then put pipe in trench line. After we got with SCS and they isolated section we then tie in 6" lateral for EW-302. We tie into existing 6" riser at EW-301 with a 6" tee. While we were tie in tee the site wanted us to cut and lower EW-301. After lateral was tie in we then lowered EW-301 like the site wanted. We spent a total of 2hrs on tie in and lowering well. We then went up on top of the hill and abandon the old well EW-302 and existing 6" vacuum riser with 6" fused buttcap. We then shot in pipe it all had 3% or more grade so we then started hauling dirt and back filling trench line. We set survey risers every 50ft and fittings. We also rolled caution tape down trench line and finished back filling trench line. We also then hooked EW-302R with existing wellhead that was on old well and we also hooked wellhead back on EW-301. We then went over and started fusing up 6" laterals and put them on air test. We had 2-300ft and 1-200ft laterals on air test. We put 40psi on all air test and Janet the QC came over and started air test. We then filled up all equipment and then unloaded trucks and wrapped things up and left for the day.

Janet A. Todia 1/21/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/21/2013
AEGL SUPERINTENDENT DATE

Janet A. Todia CQA
NAME & TITLE



**American
Environmental
Group Ltd.**

AEGL DAILY DIARY

DATE: 1/22/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-46R	PIPE DIA. 6"
		STATION: 0+00 to 2+34	LINEAR FT. 234'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
WEATHER & TIME INFORMATION		LATERAL: # H-15	PIPE DIA. 6"
		STATION: 0+00 to 1+90	LINEAR FT. 190'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
DAILY CONDITIONS: Very cold		FORCEMAIN: # EW-46R	PIPE DIA. 3"
		STATION: 0+00 to 2+34	LINEAR FT. 234'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
START TIME 7:00AM STOP TIME 5:15PM		AIR: # EW-46R	PIPE DIA. 2"
		STATION: 0+00 to 2+34	LINEAR FT. 234'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and started trenching on 6" laterals going to EW-46R and H-15. While we were trenching on laterals we prep pipe and then started in stalling pipes. We started by putting 2-6" pipes with 90 risers at the 12" header. Once pipe was in trench we then put 2" air and 3" forcemain in same trench and fused to the tees that we installed when doing the 12" header. Once we had all pipes in trench we then shot in both 6" laterals and they both had 3% or more grade so we started back filling trench. We then stayed up with the trench line and put pipes in trench as we dug. Once we got down to station mark 1+90 we then turn 1-6" pipe that will be trenched to H-15. We then dug all the way to EW-46R and after trench was done we then put a 6" tee in to EW-46R and then tie in with the 6" lateral coming from the 12" header. We also installed a 2" air and 3" force main 90 risers at EW-46R. Once we had all pipe shot in and good we then finished back filling trench line. While we were finishing back filling the surveyor came in today and shot all riser pipes and on the laterals we did today so we went around and pulled all survey risers out. We also put a 2" landtec wellhead on EW-45R like the site wanted. We had 2-6" pipes also 2" air and 3" forcemain in the same trench today. Once we had all equipment filled up and trucks unloaded we wrapped things up and left for the day.

Note: Kevin went to the progress meeting this morning at 8AM

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/23/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below) 40FT of 12" CMP		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-313	PIPE DIA. 6"
		STATION: 0+00 to 2+10	LINEAR FT. 210'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Clear/cold	
START TIME	7:00AM
STOP TIME	5:15PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and went over what we were going to today. Once we finished meeting we went up on the hill and started trenching on 6" lateral from EW-313. While were trenching we prep up pipe and fittings. Once we had pipe prep we then started putting 6" pipe in trench line. We started with a 6" 90 riser at station mark 0+00 for EW-313. We then went down and cut pipe where we are going to put a tee riser. We then slipped 40ft of 12" cmp over the 6" pipe for road crossing. The CMP started at station mark 0+65 and ended at 1+05. Once we bolted the 2 pieces of Cmp together we then went and put a 6" tee riser at EW-314R. After we had 6" pipe on the bottom of the trench we then shot in pipe it all had 3% or more grade. We then started hauling dirt and back filling trench line. Jesse the surveyor came in today and shot 6" lateral, fittings and road crossing. While we were backfilling we went and raised EW-42R 2" air and 3" forcemain 12ft because SCS didn't have the right dyes to do it. Once we finished raising pipes we went and started fabbing up 12" risers and fitting for the end of the 12" header system. We also put 6" pipe on both ends of the cmp and painted them blue like the site wanted. Once back filling was done we unloaded trucks and wrapped things up and left for the day.

Jacob Tolia 1/23/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/23/2013
AEGL SUPERINTENDENT DATE

Jane A Tolia CQA
NAME & TITLE



AEGL DAILY DIARY

DATE: 1/24/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	3	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # H-15	PIPE DIA. 6"
		STATION: 1+90 to 2+52	LINEAR FT. 62'
		RISER HEIGHT:	TRENCH DEPTH 5' to 7'
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then loaded up trucks and went up on the hill. We then started trench on 6" lateral going to H-15 where we left off. While we were trenching we put 2" wellhead on EW-157 and also unbolted flanges on existing 6" vacuum risers and then bolted a 6" blind on top of the vacuum riser and then buried the old vacuum riser. Once trench was dug we put 6" pipe in trench line and then went down to H-15 and cut riser pipe and put a 6" 90 elbow on existing riser and tie in the new 6" lateral to the other side of the 90 elbow. We also cut and welded a 4" butt cap to the existing 4" vacuum riser. We also cut and filled the old well EW-46 with dirt and then put slip cap cap with silicone and 3 lag screws. We then went over and dug 4ft down on EW-45R and abandon the 6" well. We cut and capped the 4" vacuum riser with 4" butt cap and cut and filled up old well with dirt and put a 6" slip cap with silicone and 3 lag screws. We then started hauling dirt and back filling trench line. We also shot in pipe it all had 3% or more grade. We set survey risers every 50ft mark and fittings also rolled caution tape down trench line. While we were finishing back filling we fused up more of the 12" fittings so we can have it ready for tomorrow. We also put 2" well heads on wells EW-46R and H-15. Once all back filling was done we unloaded trucks and wrapped things up and left for the day.

NOTE: we installed 3-2" well heads also had 3-6" abandonments and 2-4" abandonments and also 1-6" tie in

Janet A Todia 1/24/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/24/2013
AEGL SUPERINTENDENT DATE

Janet A Todia CQA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/25/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Cold/snow	
START TIME	7:00AM
STOP TIME	12:00PM

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then loaded up trucks and went up on the hill. We then went over and started trenching on 12" header. While we started trenching we had 2 trucks come in with pipe and fittings for phase 2 of the job so we tracked the hoe down and unloaded pipe and fittings. Once we finished unloading trucks we went back up on top and had to fix a 6" vacuum lateral that we hit when we started trenching on the 12" header. So there fore we fused in 2-6" flanges and bolted back together. While we were bolting up flanges we had another truck of pipe come in so we sent the hoe back down and unloaded truck. Once truck was unloaded we the shut down the job today do to the fact we couldn't get the truck to stay on the hill and the weather was getting really bad.

James A Todia 1/25/13
CLIENT REPRESENTATIVE DATE
James A Todia CQA
NAME & TITLE

Bob Minor 1/25/2013
AEGL SUPERINTENDENT DATE



AEGL DAILY DIARY

DATE: 1/26/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact of bad conditions.

[Signature] 1/26/13
CLIENT REPRESENTATIVE **DATE**
Tanet A Tbdid CSA
NAME & TITLE

Bob Minor 1/26/2013
AEGL SUPERINTENDENT **DATE**



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/27/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

COMMENTS (Description of Work Order Completed):

Today we didn't work

James A. Todia 1/27/13
CLIENT REPRESENTATIVE DATE
James A. Todia COA
NAME & TITLE

Bob Minor 1/27/2013
AEGL SUPERINTENDENT DATE



AEGL DAILY DIARY

DATE: 1/28/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	Ew-301 and Ew-302	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we came in to see what the site was like and we then call it a rain day. However 2 guys stayed and raised the 2" air and 4" force main valves by the 12" header because the site was pushing trash in that area. We had 2 guys and 1 excavator to raise valves 17ft. We spent a total of 2hrs on raising valves. Once we finished raising valves. SCS wanted us to help raise remote risers at EW-42R and also remote risers and well EW-45R because the site's small excavator was down. So Janet got with Chris and he said to go ahead and help them raise the wells. We had 1 guy and an excavator to raise wells. We also had 1 guy raising the 2" air and 3" force main at EW-45R. We had a total of 1.5hrs on raising all wells. We then clean tracks and unloaded trucks and wrapped things up and left for the day.

Janet A. Tobia 1/28/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/28/2013
AEGL SUPERINTENDENT DATE

Janet A. Tobia CEA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/29/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
WEATHER & TIME INFORMATION		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
DAILY CONDITIONS: Rain		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
START TIME 7:00AM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
STOP TIME 12:00PM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we came in to see what the site looked like however we wasn't able to work do to the fact of it being to muddy and raining. So we sent the guys back to the motel for the day. Bob and Kevin went down to the office and had there progress meeting with Chris. While they were in the meeting the site wanted us to take our excavator and hold up the 2" air and 4" force main risers that we raised on monday so they could push trash around them while we held them up. So we called in Dean to come in and hold the valves up with the excavator. When he got up there he needed more help because of the weight of the risers on the 4" it pinched at the bottom so we had to unpinch 4" with our pinchers. The drillers were still here so we used them to help us with getting the risers standing up. It ended up taking 4hrs to get risers standing and putting trash around risers. We had a total of 3 guys and a excavator to get valve straighten up at T&M rate for 4hrs. We then wrapped things up and left for the day.

Note: We also already told the guys that we wasn't working tomorrow

James A. Tedio 1/29/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/29/2013
AEGL SUPERINTENDENT DATE

James A. Tedio CQA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/30/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below) 40FT of 12" CMP		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact it was raining and too muddy.

Joe A. Loria 1/30/13
CLIENT REPRESENTATIVE DATE

Bob Minor 1/30/2013
AEGL SUPERINTENDENT DATE

James A. Todd CQA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 1/31/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	3	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION

DAILY CONDITIONS: snow/muddy

START TIME 7:00AM

STOP TIME 12:15PM

COMMENTS (Description of Work Order Completed):

Today we had 2 guys come in to raise the 2" air and 3" force main at EW-157 and left the other guys back at the motel until we figured out if we would be able to dig or not. Once we got out on site it was way to muddy to do anything so Bob got on the dozer and was pushing the muck around so it could freeze up and we would be able to move around tomorrow. Once the guys had the air and force main risers raised 12ft SCS needed our help to raise wells EW-42R,EW-45R2,EW-169 and EW-157. All wells were 6" risers raised 12ft SCS already had the spools made. We got with Chris to make sure that he wanted us to help raise the wells he gave us the ok so we raised all wells with SCS. We had 2 guys and a excavator for 5hrs at T&M rate. Once all wells were raised we clean out tracks and unloaded trucks then we wrapped things up and left for the day.

Note: Bob stayed out on site and kept pushing muddy around so we could get around tomorrow

James A. Todia 1/31/13
CLIENT REPRESENTATIVE DATE
James A. Todia COA
NAME & TITLE

Bob Minor 1/31/2013
AEGL SUPERINTENDENT DATE



AEGL DAILY DIARY

DATE: 2/1/2013

PROJECT NAME: Lorain County Landfill
 CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: # 12" Header	PIPE DIA. 12"
VALVE STEMS:		STATION: 4+94 to 5+84	LINEAR FT. 90'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3' TO 5'
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: # 12" Header	PIPE DIA. 3"
		STATION: 4+04 to 4+94	LINEAR FT. 90'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # 12" Header	PIPE DIA. 2"
		STATION: 4+04 to 4+94	LINEAR FT. 90'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and finished trenching on the 12" header. Once we finished trenching we then put 12" pipe in trench line and bolted to the 12" blind for air test. We installed a 12x6 tee for existing 6" lateral and EW-47R2 at station mark 5+00. We also installed 12x6 tee risers for EW-156, EW-49R, H-16 and H-17 at station mark 5+70 and 5+73. We then installed a 12" cleanout tee at station mark 5+78. We then put a 12" flange with blind at station mark 5+84 for future use. We also put 2" air and 3" force main in the same trench line beside the 12" header. We installed tee at station marks 5+00 for tie in point and at station mark 5+70 for 6" laterals for EW-49R and EW-156. Once we had all pipe in trench line and the 12" pipe shot in we then started hauling dirt and started back filling trench line. While we were back filling trench line we put air test on 12" header pipe at 10psi for 4hrs. Bill the QC came and checked air test and passed it at the end of the day. We also went down and fused up 600ft of 6" pipe. We then wrapped things up and left for the day.

[Signature] 2/1/13
 CLIENT REPRESENTATIVE DATE

[Signature] 2/1/2013
 AEGL SUPERINTENDENT DATE

[Signature] CCA
 NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 2/2/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # EW-49R3	PIPE DIA. 6"
VALVE STEMS:		STATION: 0+00 to 1+00	LINEAR FT. 100'
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
IN-LINE SUMPS:		LATERAL: # EW-156	PIPE DIA. 6"
QED VAULT KITS:		STATION: 0+00 to 1+89	LINEAR FT. 189'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
ENCASEMENTS:		LATERAL: # H-16S	PIPE DIA. 4"
		STATION: 0+00 to 1+00	LINEAR FT. 100'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		LATERAL: # H-17S	PIPE DIA. 4"
		STATION: 0+00 to 1+00	LINEAR FT. 100'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # EW-49R3 and EW-156	PIPE DIA. 2"
		STATION: 0+00 to 1+00	LINEAR FT. 100'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-49R3 and EW-156	PIPE DIA. 3"
		STATION: 0+00 to 1+00	LINEAR FT. 100'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # EW-156	PIPE DIA. 2"
		STATION: 0+00 to 0+89	LINEAR FT. 89'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-156	PIPE DIA. 3"
		STATION: 0+00 to 0+89	LINEAR FT. 89'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

MISC. ITEMS / EXTRA DETAIL: (Described Below)

WEATHER & TIME INFORMATION

DAILY CONDITIONS:
Heavy snow/ cold

START TIME 7:00AM

STOP TIME 5:00PM

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up and started trenching on laterals going to EW-156,EW-49R3,H-16S and H-17S. While we were trenching on lateral we fused up 2-360ft laterals of 4" for H-16s and H-17S. Once fused up we took them up on top and started installing pipes in trench lines. We started by put 2-6" laterals for EW-156 and EW-49R3 and 2-4" laterals going to H-16S and H-17S with 90 risers on all pipes. Once all pipes were in we then shot in all pipes in trench line and it all had 3% or more grade. We then put 2" air and 3" forcemain in same trench and welded a 3" and 2" tee at station mark 1+00 to go to EW-156. We then trench 89ft in different trench for EW-156 and tie in to well with 6" tee and put 2" and 3" 90 risers for EW-156. So for the first 100 ft we had 2-6" pipes and 2-4" pipes also 2" pipe and 3" pipe in same trench. We then had 89ft of trench for the 6" lateral with air and forcemain going to EW-156. Once all pipes were in trench line we started back filling trench lines and set survey risers every 50ft mark and fittings also rolled caution tape down trench line. While we were back filling we put air test on both 4" laterals going to H-16s and H-17S at 40psi for 4hrs so it will be passed and can tie them in on monday. We also went and put trans fittings over on EW-46R. Once everything was done and unloaded,we wrapped things up and left for the day.

Justin Berk 2/2/13
CLIENT REPRESENTATIVE DATE
Robert A Todis COA
NAME & TITLE

Bob Minor 2/2/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 2/3/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY	HEADER: #	PIPE DIA.
VALVES:		STATION:	LINEAR FT.
VALVE STEMS:		HAR:	TRENCH DEPTH
LAND-TEC WELLHEADS:		HEADER: #	PIPE DIA.
IN-LINE SUMPS:		STATION:	LINEAR FT.
QED VAULT KITS:		RISER HEIGHT:	TRENCH DEPTH
QED PUMPS:		HORIZONTAL: #	PIPE DIA.
ENCASEMENTS:		STATION:	LINEAR FT.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didn't work

Joe P. Loria 2/13/13
CLIENT REPRESENTATIVE DATE

Bob Minor 2/3/2013
AEGL SUPERINTENDENT DATE

James A. T. D. CDA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 2/4/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	Ew-49R3 / H-16S / H-17S	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: # EW-49R3	PIPE DIA. 6"
		STATION: 1+00 to 2+67	LINEAR FT. 167'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		LATERAL: # H-16S	PIPE DIA. 4"
		STATION: 1+00 to 2+86	LINEAR FT. 186'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		LATERAL: # H-17S	PIPE DIA. 4"
		STATION: 1+00 to 2+86	LINEAR FT. 186'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-49R3	PIPE DIA. 3"
		STATION: 1+00 to 2+67	LINEAR FT. 167'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		AIR: # EW-49R3	PIPE DIA. 2"
		STATION: 1+00 to 2+67	LINEAR FT. 167'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Snow/Cold	
START TIME	7:00AM
STOP TIME	5:30PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and finished trenching laterals going to EW-49R3, H-16S and H-17S. While we were trenching the site wanted us too raise EW-157 do to the fact the site excavator is still down so we helped SCS raise EW-157 12ft. We spent 2hr on raising all risers and the 3" forcemain and the 2" air. We then went back over and installed pipe in trench line. We first went over to EW-49R3 and put a 8x6 tee into new 8" well and then tie in the 6" lateral to the 8x6 tee. We then put 2" air and 3" force main 90 risers at EW-49R3. We then went over and tie in H-16S and H-17S with 6" 90 elbows reduced to 4". Both 4" laterals we in there own trench for 46' and once all tie ins were done we shot in pipe it all had 3% or more grade so we started hauling dirt and back filling. We also abandon old well EW-49R2 and 6" vacuum line with silicone 6" slip cap and lag screws. We then went up and installed 2" wellheads at 12" header. We put wellheads on EW-49R3, H-16S and H-17S. Also jesse the surveyor came in and shot all riser pipes and the pipe that we installed today so we pulled all riser pipes. After we finished back filling trench we unloaded trucks and wrapped things up and left for the day.

Paul A. Loria 2/4/13
CLIENT REPRESENTATIVE DATE

Bob Minor 2/4/2013
AEGL SUPERINTENDENT DATE

Paul A. Loria CDA
NAME & TITLE



**American
Environmental
Group Ltd.**

AEGL DAILY DIARY

DATE: 2/5/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
WEATHER & TIME INFORMATION		LATERAL: # EW-47R2	PIPE DIA. 6"
DAILY CONDITIONS:		STATION: 0+00 to 0+23	LINEAR FT. 23'
cold		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		FORCEMAIN: # EW-47R2	PIPE DIA. 3"
		STATION: 0+00 to 0+23	LINEAR FT. 23'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
START TIME 7:00AM		AIR: # EW-47R2	PIPE DIA. 2"
STOP TIME 5:00PM		STATION: 0+00 to 0+23	LINEAR FT. 23'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and dug up tie in point for EW-47R2 and then trenched lateral for EW-47R2. Once lateral was dug we then abandon existing lateral with a 6" blind. We then put in a 6" tee to existing 6" lateral and the tie in to the new 12" header with a 6" flange. We then installed a 6" 90 elbow pointing up the hill at 0+08 and then put a 6" 90 riser for EW-47R2 at 0+23. We then put a 2" and 3" tees in the air and forcemain lines at the 12" header and ran them up to the new well EW-47R2. We then had SCS isolate the 12" header after we got the ok we pulled 12" blind and rebolted up the 12" flanges. Now all wells that were to be connected to the 12" header is now all on line. We then went down to EW-156 and abandon the existing 6" vacuum riser with a 6" buttcap. Once vacuum riser was abandon we hooked up existing 2" wellhead to the new vacuum riser at the 12" header. We then put air test on the 2" air at 100PSI and the 3" forcemain at 50psi for 4hrs. Air test was passed by Janet the QC. While we were backfilling holes we went over and extend 6" lateral at EW-313 so it could make it all the way down to tie in and once it was extend we then put air test on 6" lateral at 40psi over night so we can tie it in tomorrow. Also we had to help SCS raise EW-157 we raised 4-6" risers and the 2" air and forcemain 12ft. We spent 1.5 hrs with 2 guys and a excavator helping SCS because the sites excavator is still down. Once back filling was done we clean out tracks on equipment and unloaded trucks and wrapped things up and left for the day.

Note: We had to build a new road so we could get our trucks in and out because site keeps moving the tippers were we build a road.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
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Group Ltd.

AEGL DAILY DIARY

DATE: 2/6/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	EW-47R2 / EW-313 / EW-314R	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: # EW-315	PIPE DIA. 6"
40FT of 12" CMP		STATION: 0+00 to 1+80	LINEAR FT. 180'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		LATERAL: # EW-315	PIPE DIA. 6"
		STATION: 1+80 to 3+20	LINEAR FT. 140'
		RISER HEIGHT:	TRENCH DEPTH Above ground
		LATERAL: # EW-313	PIPE DIA. 6"
		STATION: 2+10 to 2+92	LINEAR FT. 82'
		RISER HEIGHT:	TRENCH DEPTH Above ground
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
Cold	
START TIME	7:00AM
STOP TIME	6:00PM

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and started trenching on 6" lateral at EW-315. While we were trenching on lateral we went over and tie in to the existing 2" air and 4" forcemain for the air and forcemain in the new 12" header. we tie in the existing tee and reduced it to 3" and we also tie in the 2" air to the existing tee. We spent 1hr on the tie in for the air and forcemain. We then went over to the 6" lateral from EW-313 and went down to EW-316 and tie in to the existing 6" vacuum risers with a 6" tee above ground. Once lateral was hooked up we then hooked up wellheads at EW-313 and EW-314R. We also abandoned existing vacuum risers at EW-313 and EW-314R with a 6" buttcap and a 2" buttcap above ground. We then went over and started installing 6" lateral at EW-315. We started by putting a 6" 90 risers at 0+00 and then went down and then put 40ft of 12" CMP for road crossing starting at 1+09 and ends at 1+49. We then installed a 6" tee riser at EW-318R at 1+51. We then ran 6" lateral above ground at 1+80 all the way to tie in point. Once lateral was in we shot pipe in and it all had 3% or more grade so we started back filling trench line. We also put brick on top of the 12" cmp for the road crossing. While we were backfilling trnch we put air test on 6" lateral at 40psi for 4hrs. We then went down and started fusing up 6" pipe but got a call from SCS and the site hit a 2" air and a 3" forcemain so we stopped what we were doing and went up and made repair and we spent 1hr on the repair. After the drillers finished EW-47R3 we went over and dug up existing well and abandon well EW-47R2 with a 6" slip cap with silicone And lag screws and also filled the old well with dirt. We also abandon the existing 6" vacuum riser with a 6" buttcap. We then back filled around abandonment. We then went up and hooked up 3" wellhead to the new well EW-47R3. We then clean out tracks and unloaded trucks then left site for the day.

Note: We tried to remove existing pump at EW-47R2 but pump was stuck and snapped off so therefore we we unable to get pump out

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



AEGL DAILY DIARY

DATE: 2/7/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY	HEADER: #	PIPE DIA.
VALVES:		STATION:	LINEAR FT.
VALVE STEMS:		HAR:	TRENCH DEPTH
LAND-TEC WELLHEADS:	3	HEADER: #	PIPE DIA.
IN-LINE SUMPS:		STATION:	LINEAR FT.
QED VAULT KITS:		RISER HEIGHT:	TRENCH DEPTH
QED PUMPS:		LATERAL: # EW-324	PIPE DIA. 6"
ENCASEMENTS:		STATION: 0+00 to 1+10	LINEAR FT. 110'
MISC. ITEMS / EXTRA DETAIL: (Described Below) 80ft of 12" CMP		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
		LATERAL: # EW-324	PIPE DIA. 6"
		STATION: 1+10 to 1+50	LINEAR FT. 40'
		RISER HEIGHT:	TRENCH DEPTH Above ground
WEATHER & TIME INFORMATION		LATERAL: # EW-325	PIPE DIA. 6"
		STATION: 0+00 to 1+70	LINEAR FT. 170'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
DAILY CONDITIONS: cold/sunny		LATERAL: # EW-325	PIPE DIA. 6"
		STATION: 1+70 to 2+40	LINEAR FT. 70'
		RISER HEIGHT:	TRENCH DEPTH 3' to 5'
START TIME 7:00AM		AIR: #	PIPE DIA.
STOP TIME 5:00PM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then loaded up trucks and went over and started trenching 6" lateral from EW-324. Once trench was dug we put 6" pipe in trench line. We then put 40ft of 12" CMP over top of the 6" pipe starting at 0+30 and ends at 0+70. Once we got the cmp in place we shot in pipe it all had 3% or more grade so we started back filling trench line. We put 8ft timber post on both ends of the cmp road crossing and then painted them blue. Also we trenched till 1+10 and then the 6" pipe daylighted and ran above ground to the tie in point. We then trench on 6" lateral at EW-325 and while we were trenching on lateral we went over and had to help SCS raise wells EW-157 and EW-47R3. WE had a total of 2hrs with 2 guys and a excavator. Once we finished raising wells we then went back and started installing 6" lateral at EW-325. We installed a 6" 90 riser at 0+00 at EW-325 and then went down and put 12" CMP for road crossing at 1+14 and ends at 1+54. We then went down the hill and put a 6" tee riser for EW-319 and H-16N. We then ran pipe down to tie in point. We then shot in pipe and it all had 3% or more grade so we started hauling dirt and back filling trench line. We put survey risers every 50ft mark and fittings. We also put 8ft timber post on each end of the road crossing and painted them blue. We also then hauled brick for both road crossing. While we were back filling we put air test on both 6" laterals at 40psi for 4hrs and Janet the QC came and checked the air test. We then went down and fused up 600ft of 6" pipe. We also went down and drilled a sample port on the 12" header sump on the north west side of the landfill to see what kind of vacuum is on the line. Once sample port was in Jim from SCS came in and got readings from both sides of the sump. Once back filling was done we unloaded trucks and cleaned out tracks on all equipment then wrapped things up and left site for the day.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 2/8/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
Rain	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didn't go into work do to the fact it was raining today.

Mark L. Loda 2/8/13
CLIENT REPRESENTATIVE DATE

Bob Mino
NAME & TITLE

Bob Mino 2/8/2013
AEGL SUPERINTENDENT DATE



AEGL DAILY DIARY

DATE: 2/9/2013

PROJECT NAME: Lorain County Landfill
 CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # EW-323	PIPE DIA. 6"
VALVE STEMS:		STATION: 3+22	LINEAR FT. 2'
LAND-TEC WELLHEADS:		RISER HIEGHT:	TRENCH DEPTH Above ground
IN-LINE SUMPS:		LATERAL: # EW-324	PIPE DIA. 6"
QED VAULT KITS:		STATION: 1+65	LINEAR FT. 15'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH Above ground
ENCASEMENTS:		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our safety metting and then went up on the hill and started tie in 6" lateral for EW-323. We started by abandon old well EW-315. We put a silicone slip cap on well and 3 lag screws and abandon the 6" vacuum riser with a buttcap. Once SCS isolated the 12" header we then tie in lateral to existing 6" riser at EW-317. We then went over and tie in 6" lateral for EW-324. We went down to existing 6" riser for EW-318 and installed a 6" tee and tie in new lateral above ground. We the went over and tie in 6" lateral for EW-325. WE started by abandon the existing vacuum riser at EW-319 with a 6" butt cap and then went down the hill and tie in the 6" lateral to a existing 6" lateral that came from the 12" header. We installed and hooked up wellheads for EW-323, EW-324, EW-325 and EW-315R. WE also hauled dirt up to EW-47R3 to put around well and then had to fix the 3" caniflex that was leaking and we spent 2hrs on putting dirt around well and repair. We also put 90 risers on both ends of a 200ft stringer of 6" pipe and put it on air test at 40psi so we could do tie ins first thing monday morning. Once everything was done we wrapped things up and left for the day.

[Signature] 2/9/13
 CLIENT REPRESENTATIVE DATE
[Signature] QA
 NAME & TITLE

[Signature] 2/9/2013
 AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 2/10/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HORIZONTAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR & FM: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

COMMENTS (Description of Work Order Completed):

Today we didn't work

Bob Minor 2/10/13
CLIENT REPRESENTATIVE DATE

Bob Minor CDA
NAME & TITLE

Bob Minor 2/10/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/11/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT	LINEAR FT.
LINEAR FEET OF WELL COMPLETION	STATION TRENCH DEPTH
PERFORATED PIPE-DIA.	SUBHEADER # PIPE DIA.
SOLID PIPE -DIA.	LINEAR FT.
COMPLETION: (WELL NUMBERS)	STATION TRENCH DEPTH
	LATERAL # PIPE DIA.
	LINEAR FT.
	STATION TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
GENERAL INFORMATION	LATERAL: # PIPE DIA.
WEATHER CONDITIONS	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	LATERAL # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
START TIME	AIRLINE FM
STOP TIME	

COMMENTS:

Rain day. No work.

Paul Todio 2/11/13
CLIENT REPRESENTATIVE DATE
Isabel A Todio CQA
NAME & TITLE

Rob Minor 2/11/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/12/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION # _____ LINEAR FT. _____
	TRENCH DEPTH _____
	LATERAL: # EW-54R2 PIPE DIA. 6"
	STATION 0+0 0+57 LINEAR FT. 57'ft.
	RISER HEIGHT _____ TRENCH DEPTH <5'ft.
	LATERAL: # EW-321 PIPE DIA. 6"
	STATION 0+0 2+64 LINEAR FT. 264'ft.
	RISER HEIGHT _____ TRENCH DEPTH Above
	LATERAL # EW-50R2 PIPE DIA. 6"
	STATION 0+0 0+20 LINEAR FT. 20'ft.
	RISER HEIGHT _____ TRENCH DEPTH <5'ft.
	AIRLINE 2"- 157'ft FM 3"- 157'ft.
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>5:30 p.m.</u>	

COMMENTS:

Abandoned wells EW-54R and EW-50R. Installed pipe for wells EW-54R2, EW-321, and EW-50R2. Installed 137'ft of air and forcemain to EW-54R2. Installed 20'ft of air and forcemain to EW-50R2.

Janet A. Tobia 2/12/13
CLIENT REPRESENTATIVE DATE
Janet A. Tobia CHA
NAME & TITLE

Bob Minor 2/12/13
AEGLE SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/13/2013

PROJECT NAME LORAIN COUNTY

PROJECT# 20213100

DRILLING		CONSTRUCTION	
LINEAR FEET OF DRILLING		HEADER #	PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT		STATION	LINEAR FT.
LINEAR FEET OF WELL COMPLETION			TRENCH DEPTH
PERFORATED PIPE-DIA.		SUBHEADER #	PIPE DIA.
SOLID PIPE -DIA.		STATION	LINEAR FT.
			TRENCH DEPTH
COMPLETION: (WELL NUMBERS)		LATERAL #	PIPE DIA.
		STATION #	LINEAR FT.
			TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION	LINEAR FT.
		RISER HEIGHT	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION	LINEAR FT.
		RISER HEIGHT	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION	LINEAR FT.
		RISER HEIGHT	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION	LINEAR FT.
		RISER HEIGHT	TRENCH DEPTH
		AIRLINE	FM
GENERAL INFORMATION			
WEATHER CONDITIONS			
START TIME 7:00 a.m.			
STOP TIME 5:30 p.m.			

COMMENTS:

Worked on barometric trap on north slope. Tied in air and fm at EW-50 after air test passed. Replaced sections of fencing taken down for access.

James A. Todio 2/13/13
CLIENT REPRESENTATIVE DATE
James A. Todio CAA
NAME & TITLE

Bob Minor 2/13/13
AEGLE SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/14/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION # _____ LINEAR FT. _____
	TRENCH DEPTH _____
	LATERAL: # EW-152 PIPE DIA. 6"
	STATION 0+0 0+30 LINEAR FT. 30'ft.
	RISER HEIGHT _____ TRENCH DEPTH <5'ft.
	LATERAL: # EW-63R PIPE DIA. 6"
	STATION 0+0 0+25 LINEAR FT. 25'ft.
	RISER HEIGHT _____ TRENCH DEPTH <5'ft.
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE 2"- 224'ft. FM 3"- 224'ft.
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>5:30 p.m.</u>	

COMMENTS:

Abandoned wells EW-152 and EW-63. Installed pipe for wells EW-152R and EW-63R. Installed air and fm for both wells.

[Signature] 2/14/13
CLIENT REPRESENTATIVE DATE
[Signature] CQA
NAME & TITLE

Bob Minor 2/14/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/15/2013

PROJECT NAME LORAIN COUNTY

PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION # _____ LINEAR FT. _____
	TRENCH DEPTH _____
	LATERAL: # <u>EW-50R</u> PIPE DIA. <u>6"</u>
	STATION <u>0+0</u> <u>1+96</u> LINEAR FT. <u>196'ft.</u>
	RISER HEIGHT _____ TRENCH DEPTH <u>0-7'ft.</u>
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE _____ FM _____
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>2:30 p.m.</u>	

COMMENTS:

Abandoned vacume riser at HC-18. Installed pipe for EW-50R. Installed pump in barometric trap on north slope.

Janet A. Todia 2/15/13
CLIENT REPRESENTATIVE DATE
Janet A. Todia CQA
NAME & TITLE

Bob Minor 2/15/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 2/16/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE _____ FM _____
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>12:00 p.m.</u>	

COMMENTS:

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SITE SUPERVISOR

DATE



American
Environmental
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DAILY DIARY

DATE: 2/17/2013

PROJECT NAME LORAIN COUNTY

PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT	STATION LINEAR FT.
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH
PERFORATED PIPE-DIA.	SUBHEADER # PIPE DIA.
SOLID PIPE -DIA.	STATION LINEAR FT.
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH
	LATERAL # PIPE DIA.
	STATION LINEAR FT.
	TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	AIRLINE FM

COMMENTS:

Sunday. No work.

CLIENT REPRESENTATIVE

DATE

AEGL SITE SUPERVISOR

DATE

NAME & TITLE



DATE: 5/20/2013

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	

HEADER: # _____ PIPE DIA. _____
 STATION: _____ LINEAR FT. _____
 HAR: _____ TRENCH DEPTH _____

HEADER: # _____ PIPE DIA. _____
 STATION: _____ LINEAR FT. _____
 RISER HEIGHT: _____ TRENCH DEPTH _____

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

FORCEMAIN: # EW-125R2	PIPE DIA. 4x2
STATION: 0+00 to 7+27	LINEAR FT. 727'
RISER HEIGHT:	TRENCH DEPTH 3'

AIR: #	<u>EW-125R2</u>	PIPE DIA. <u>2'</u>
STATION:	<u>0+00 to 7+27</u>	LINEAR FT. <u>727'</u>
RISER HEIGHT:		TRENCH DEPTH <u>3'</u>

DAILY CONDITIONS:
clear

START TIME 7:00AM

STOP TIME 6:45PM

Today we started with our morning safety meeting and then went up on top of the hill and finished installing 2" air and 4x2 dual contain force main from EW-125R2, EW-112R, EW-113R and EW-114R. We started by installing 4x2 and a 2" 40 riser at 0+00 for EW-114R. We then went over and installed tee risers for EW-113R at station mark 2+26. Then installed tee risers at EW-112R at 5+20. we then installed a 4x2 tee at station mark 6+78 and a 2" tee at station mark 6+70 going to the isolation vavle for tie ins. We then installed 90 risers at EW-125R2 at 7+27. Once all pipes and fitting were fused in trench we then back filled trench line and set survey risers every 50ft mark and fitting. We also rolled caution tape down trench line. While we were back filling trench line we exccated around wells EW-125R2, TEW-7R2, EW-111, EW-111R, EW-128R2, EW-115R2 for liner boots and repairs. We also dug up around EW-125R and EW-115R for abandonments. We then went over and started booting around new well TEW-7R2. We cut liner and put the existing 2" air and forcemain under liner and then welded liner boots around well and the 2" air riser and the 4x2 force main risers. We then wrapped things up and left for the day.

CLIENT REPRESENTATIVE

DATE _____

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
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AEGL DAILY DIARY

DATE: 5/21/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below) 10Hrs on liner boots and repairs		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-115R2	PIPE DIA. 6"
		STATION: 0+00 to 2+50	LINEAR FT. 250'
		RISER HEIGHT:	TRENCH DEPTH 3'
WEATHER & TIME INFORMATION		LATERAL: # EW-114R	PIPE DIA. 6"
		STATION: 0+00 to 1+30	LINEAR FT. 130'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: #	PIPE DIA.
DAILY CONDITIONS: clear		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
START TIME 7:00AM STOP TIME 6:30PM		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and started doing liner boots and repairs. We put liner boots and repairs at EW-11R the new well and the abandon well, EW-125R2, TEW-7R2, EW-326, EW-22R and EW-115R2. While we were doing repairs we back filled some of the liner repairs and then trench on 6" laterals for EW-114R and EW-115R2. Once laterals were installed in trench lines we started back filling trench lines. We set survey risers every 50ft mark and rolled caution tape down trench line. Once all back filling was complete we wrapped things up and left for the day.

NOTE: We had a total of 10hrs on liner boots and repairs

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
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AEGL DAILY DIARY

DATE: 5/22/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-008

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # EW-125R	PIPE DIA. 6"
VALVE STEMS:		STATION: 0+00 to 0+30	LINEAR FT. 30'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3'
IN-LINE SUMPS:		LATERAL: # TEW-7R2	PIPE DIA. 6"
QED VAULT KITS:		STATION: 0+00 to 0+29	LINEAR FT. 29'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3'
ENCASEMENTS:		LATERAL: # EW-114R	PIPE DIA. 6"
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION: 1+30 to 2+70	LINEAR FT. 140'
		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: # EW-115R2	PIPE DIA. 6"
		STATION: 2+50 to 2+74	LINEAR FT. 24'
		RISER HEIGHT:	TRENCH DEPTH 3'
WEATHER & TIME INFORMATION		LATERAL: # EW-111R	PIPE DIA. 8"
		STATION: 0+00 to 2+20	LINEAR FT. 220'
		RISER HEIGHT:	TRENCH DEPTH 3'
DAILY CONDITIONS:		FORCEMAIN: #	PIPE DIA.
clear		STATION:	LINEAR FT.
START TIME 7:00AM		RISER HEIGHT:	TRENCH DEPTH
STOP TIME 6:30PM		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and tied in 6" lateral at EW-125R. We made tie in with 6" 90 elbows on existing vacuum riser. We also abandon the existing 2" air and force main with 2" butt caps. We also abandon old well EW-125 by filling well up with dirt and then putting a slip cap with 3 lag screws. We then went over and tied in 6" lateral at TEW-7R2 with 6" 90 elbows coming off of the existing vacuum riser going to the new well. We then also abandon old well by filling well up with dirt and then putting a 6" slip cap with 3 lag screws. We then went over and finished trenching on both 6" laterals from EW-114R and EW-115R2. Once we finished trenching we installed a 6" at station mark 1+43 and tie the 2 lie together and then ran 6" pipe to tie in point. Once all pipe was fused in we then put 6" laterals on air test at 25psi for 4hrs. We then started back filling trench line. Surveyors came out and shot all risers and fittings so we went around and pulled out all riser pipes. While we were doing that we went over and started trenching on 8" lateral for EW-111R. We started by putting a 8" 90 reduced to 6" for EW-111R and then installed a 8" tee reduced to 6" for riser at EW-110R at 1+90. Once all pipe was in trench line we back filled trench line and rolled caution tape down trench line. While we were back filling we went over and put air test on 2" air and 4x2 dual contain force main from EW-125R. We put 100psi on the 2" air and on the 4" we put 30psi and on the inner 2" force main we put 50psi. Once air test were all on we wrapped things up and left for the day

[Signature] 5/22/13
CLIENT REPRESENTATIVE DATE

[Signature] NAME & TITLE

[Signature] 5/22/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5/23/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY	HEADER: #	PIPE DIA.
VALVES:		STATION:	LINEAR FT.
VALVE STEMS:		HAR:	TRENCH DEPTH
LAND-TEC WELLHEADS:		HEADER: #	PIPE DIA.
IN-LINE SUMPS:		STATION:	LINEAR FT.
QED VAULT KITS:		RISER HEIGHT:	TRENCH DEPTH
QED PUMPS:		LATERAL: # EW-111R	PIPE DIA. 8"
ENCASEMENTS:		STATION: 2+20 to 3+93	LINEAR FT. 170'
MISC. ITEMS / EXTRA DETAIL: (Described Below)		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: # EW-115R	PIPE DIA. 6"
		STATION: 2+50 to 2+84	LINEAR FT. 34'
		RISER HEIGHT:	TRENCH DEPTH 3'
WEATHER & TIME INFORMATION		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS: Cloudy/rain		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
START TIME 7:00AM		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
STOP TIME 3:45PM		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and abandon EW-115 down slope well with 2-6" slip caps with 3 lag screws. We then went over and got with SCS to isolate tie in for EW-115R and EW-114R. Once everything was isolated we then went down and tie into existing 6" vacuum riser with a 6" tee port side down and a 90 elbow pointing up the hill for the 6" laterals for EW-115R and EW-114R. We then tie 6" existing lateral for EW-107 to other side of 6" tee. Once tie in was complete we then went up on the hill and cut 6" tee out of well EW-114R and put 6" flanges on top of well. We also abandon the existing 6" vacuum riser with 6" butt cap. We then put well heads on EW-115R and EW-114R. Once well heads were on we got with SCS and told them they could have the system back. We then went over and finished trenching on 8" lateral from EW-111R. We went down and installed 8" tee reduced to 6" for riser at EW-27R. We then put 8" butt cap on end of the lateral and put lateral on air test at 25psi for 4hrs. We then went down and exposed 24" pipe for tie in point. Once we finished trench on 8" lateral and tie in point we exposed around old well EW-27 and around EW-110 to abandon 6" vacuum riser for tomorrow morning when we do tie in. Once back filling was all done the rain set in so we unloaded trucks and wrapped things up and left for the day.

[Signature] 5/23/13
CLIENT REPRESENTATIVE DATE

[Signature] 5/23/2013
AEGL SUPERINTENDENT DATE

[Signature] COA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5/24/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HEADER: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		HEADER: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: rain	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didn't work do to all the rain over night.

John M. Mucka 5/24/13
CLIENT REPRESENTATIVE DATE
James A. T. B. CQA
NAME & TITLE

John D. B. CQA 5/24/2013
AEGL SUPERINTENDENT DATE

**AEGL DAILY DIARY**

DATE: 5/25/2013

PROJECT NAME:	Lorain County Landfill
CLIENT/PROJECT#	202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION			
DAILY CONDITIONS:			
START TIME _____			
STOP TIME _____			

Today we didn't work

James M. Tolia 5/25/13
CLIENT REPRESENTATIVE DATE
James M. Tolia CPA
NAME & TITLE


AEGL SUPERINTENDENT

5/25/2013
DATE



DATE: 5/26/2013

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		RISER HIEGHT:	TRENCH DEPTH
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS:			
START TIME _____			
STOP TIME _____			

Today we didn't work


 CLIENT REPRESENTATIVE

4/24/13
 DATE


 NAME & TITLE

 5/26/2013
AEGLE SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5/27/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	
MISC. ITEMS / EXTRA DETAIL: (Described Below)	
WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	
HEADER: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
HAR: _____	TRENCH DEPTH _____
HEADER: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
FORCEMAIN: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
AIR: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact the site was shut down for the holiday.

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SUPERINTENDENT

DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5/28/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY	HEADER: #	PIPE DIA.
VALVES:		STATION:	LINEAR FT.
VALVE STEMS:		HAR:	TRENCH DEPTH
LAND-TEC WELLHEADS:		HEADER: #	PIPE DIA.
IN-LINE SUMPS:		STATION:	LINEAR FT.
QED VAULT KITS:		RISER HEIGHT:	TRENCH DEPTH
QED PUMPS:		HORIZONTAL: #	PIPE DIA.
ENCASEMENTS:		STATION:	LINEAR FT.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
Rain	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact of the rain

Janet Horvath 5/28/13
CLIENT REPRESENTATIVE DATE

Brian A. Tieda CQA
NAME & TITLE

John B. Kent 5/28/2013
AEGL SUPERINTENDENT DATE



DATE: 5/29/2013

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	EW-111R EW-119R and EW-27R
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	
MISC. ITEMS / EXTRA DETAIL: (Described Below)	
9hrs on liner boots	
WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
sunny	
START TIME 7:00AM	
STOP TIME 5:00PM	

LATERAL: #	EW-111R	PIPE DIA.	8"
STATION:	3+93 to 4+66	LINEAR FT.	73
HAR:		TRENCH DEPTH	3'
LATERAL: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	
LATERAL: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	
LATERAL: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	
LATERAL: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	
FORCEMAIN: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	
AIR: #		PIPE DIA.	
STATION:		LINEAR FT.	
RISER HEIGHT:		TRENCH DEPTH	

Today we started with our safety meeting and then went up on the hill and got with SCS to isolate 24" header for 8" tie in. Once SCS gave us the ok we cut pipe off existing 8" saddle and reused and fused the 8" pipe coming from EW-111R. Once tie in was done we went up and rehooked up wellheads at EW-111R, EW-110R and EW-27R. We then also abandon existing 6" vacuum riser at EW-110R with a 6" butt cap. We then went up and dug around wells that have been completed by the driller on top of liner so we can do liner boots and repairs. We repaired and EW-9R. We also made repair where we hit the old well EW-114. We Also abandon EW-27 with 6" slip cap and lag screws. We the back filled hole that could be back filled. Once back filling was complete we wrapped things up and left for the day.

NOTE: We had 9hrs in liner boots and repairs.

DATE

5/29/2013
DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

PROJECT NAME:

Lorain County Landfill

DATE:

5/30/2013

CLIENT/PROJECT#

202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # EW-135R	PIPE DIA. 6"
VALVE STEMS:		STATION: 0+00 to 0+15	LINEAR FT. 15'
LAND-TEC WELL HEADS:		HAR:	TRENCH DEPTH 3'
IN-LINE SUMPS:		LATERAL: # EW-13R2	PIPE DIA. 6"
QED VAULT KITS:		STATION: 0+00 to 0+20	LINEAR FT. 20'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3'
ENCASEMENTS:		LATERAL: # EW-128R	PIPE DIA. 6"
MISC. ITEMS / EXTRA DETAIL: (Described Below) 1.5hrs on liner repair and boot		STATION: 0+00 to 0+24	LINEAR FT. 24'
		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: # EW-9R3	PIPE DIA. 6"
		STATION: 0+00 to 0+46	LINEAR FT. 46'
		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: # EW-119R	PIPE DIA. 6"
		STATION: 0+00 to 0+13	LINEAR FT. 13'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCE MAIN: # EW-119R	PIPE DIA. 8x4
		STATION: 0+00 to 1+90	LINEAR FT. 190'
		RISER HEIGHT:	TRENCH DEPTH 3'
		AIR: # EW-119R	PIPE DIA. 2"
		STATION: 0+00 to 1+90	LINEAR FT. 190'
		RISER HEIGHT:	TRENCH DEPTH 3'

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: Sunny	
START TIME	7:00AM
STOP TIME	5:30PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the and got with SCS so we can do tie ins. Once we got the ok by SCS we did tie ins in 2 sections. We tie in EW-135R, EW-13R2 and EW-128R. We hooked up laterals to the existing 6" vacuum risers with 6" 90 elbows. We also abandon EW-135, EW-13R and EW-128 by filling wells up with dirt and putting 6" slip caps with 3 lag screws. We then put wellheads on new wells. We then got with scs and gave them the section back and for them to isolated the other section. Once we got the ok we tie in EW-9R3 and EW-119R. We maded tie ins with 6" 90 elbows to the existing 6" vacuum risers. We also abandon wells EW-9R2, EW-119 and EW-119S. By filling wells up with dirt and putting 6" slip caps with 3 lag screws in them. We also abandon 6" Vacuum riser at EW-119S with 6" buttcap. We then started trenching on the 2" air and 8x4 dual contain forcemain from EW-119R. While we were trenching we made up pipe and fittings for lateral. Once pipe was ready we installed pipes in trench line and marked out pipe and started back filling trench line. We set survey risers every 50ft mark and fittings. We also rolled caution tape down trench line. We also made liner repair and boot at EW-119R. We spent 1.5 hrs on digging around well and making liner repair and boot. Once back filling was all done we unloaded trucks and wrapped things up and left for the day.

NOTE: We had 1.5hrs on liner repair and boot

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5-31-2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: # EW-9R3	PIPE DIA. 2"
VALVE STEMS:		STATION: 0+00 to 0+47	LINEAR FT. 47'
LAND-TEC WELLHEADS:		HAR: _____	TRENCH DEPTH 3'
IN-LINE SUMPS:		FORCEMAIN: # EW-9R3	PIPE DIA. 4X2
QED VAULT KITS:		STATION: 0+00 to 0+47	LINEAR FT. 47'
QED PUMPS:		RISER HEIGHT: _____	TRENCH DEPTH 3'
ENCASEMENTS:		AIR: # EW-128R	PIPE DIA. 2"
MISC. ITEMS / EXTRA DETAIL: (Described Below) 4hrs. On liner repairs and boots		STATION: 0+00 to 0+27	LINEAR FT. 27'
		RISER HEIGHT: _____	TRENCH DEPTH 3'
		FORCEMAIN: # EW-128R	PIPE DIA. 4X2
		STATION: 0+00 to 0+27	LINEAR FT. 27'
		RISER HEIGHT: _____	TRENCH DEPTH 3'
		AIR: # EW-135R	PIPE DIA. 2"
		STATION: 0+00 to 0+17	LINEAR FT. 17'
		RISER HEIGHT: _____	TRENCH DEPTH 3'
		FORCEMAIN: # EW-135R	PIPE DIA. 4X2
		STATION: 0+00 to 0+17	LINEAR FT. 17'
		RISER HEIGHT: _____	TRENCH DEPTH 3'
		: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

Sunny

START TIME 7:00AM

STOP TIME 3:45PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went over to the mainance building and seen the parts came in for the 4x2 dual contain force main. So therefore went started going around and tie in the air and force main to EW-9R3, EW-128R, EW-135R and EW-115R. We tied in to the existing 2" risers with 4x2 90 elbows. Once tie in were done we then put boot around the 4x2 90 elbows so force main was all dual contain above liner. Once tie ins were completed we also set survey risers every fitting and then back filled all holes. We also went over and tied in the air and forcemain around EW-125R to the 2" isolation valves with a 2" tee for the air and a 4x2 dual contain tee for the forcemain. We also then put boot around 4x2 dual contain tee so all forcemain pipe was dual contain above liner. Once we completed liner boot we then back filled tie in point. While we were finishing backfilling tie in point we unloaded trucks and wrapped things up for the day because of the rain coming in.

Note: we had 4hrs on liner repairs and boots.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 5-31-2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: # EW-115R	PIPE DIA. 2"
VALVE STEMS:		STATION: 0+00 to 0+24	LINEAR FT. 24'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3'
IN-LINE SUMPS:		FORCEMAIN: # EW-115R	PIPE DIA. 4x2
QED VAULT KITS:		STATION: 0+00 to 0+24	LINEAR FT. 24'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3'
ENCASEMENTS:		AIR: # EW-125R	PIPE DIA. 2"
MISC. ITEMS / EXTRA DETAIL: (Described Below) 4hrs. On liner repairs and boots		STATION: 0+00 to 0+13	LINEAR FT. 13'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: # EW-125R	PIPE DIA. 4x2
		STATION: 0+00 to 0+13	LINEAR FT. 13'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

Sunny

START TIME 7:00AM

STOP TIME 3:45PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went over to the mainance building and seen the parts came in for the 4x2 dual contain force main. So therefore went started going around and tie in the air and force main to EW-9R3, EW-128R, EW-135R and EW-115R. We tied in to the existing 2" risers with 4x2 90 elbows. Once tie in were done we then put boot around the 4x2 90 elbows so force main was all dual contain above liner. Once tie ins were completed we also set survey risers every fitting and then back filled all holes. We also went over and tied in the air and forcemain around EW-125R to the 2" isolation valves with a 2" tee for the air and a 4x2 dual contain tee for the forcemain. We also then put boot around 4x2 dual contain tee so all forcemain pipe was dual contain above liner. Once we completed liner boot we then back filled tie in point. While we were finishing backfilling tie in point we unloaded trucks and wrapped things up for the day because of the rain coming in.

Note: we had 4hrs on liner repairs and boots.

Don M. Loeke 5/31/13
CLIENT REPRESENTATIVE DATE

John D. B. Smith 5/31/2013
AEGL SUPERINTENDENT DATE

Isabel A. Todia QA
NAME & TITLE



DATE: 6/1/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS: Rain			
START TIME _____			
STOP TIME _____			

Today we didn't work do to the fact of it raining.

CLIENT REPRESENTATIVE

DATE _____

AEGLE SUPERINTENDENT

DATE _____

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

PROJECT NAME:

Lorain County Landfill

DATE:

6/2/2013

CLIENT/PROJECT#

202-13-100

MISC. INSTALLED ITEMS / Construction

INSTALLED ITEM

INSTALLED QUANTITY

VALVES:

VALVE STEMS:

LAND-TEC WELLHEADS:

IN-LINE SUMPS:

QED VAULT KITS:

QED PUMPS:

ENCASEMENTS:

MISC. ITEMS / EXTRA DETAIL: (Described Below)

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

START TIME _____

STOP TIME _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

Today we didn't work

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SUPERINTENDENT

DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/3/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	EW-102R	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:	2-8" and 4-6"	STATION:	LINEAR FT.
QED PUMPS:	6	RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: # EW-102R	PIPE DIA. 6"
1.5hrs on liner repair and boot		STATION: 0+00 to 0+17	LINEAR FT. 17'
		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: # EW-93R	PIPE DIA. 8x4
		STATION: 0+00 to 2+80	LINEAR FT. 280'
		RISER HEIGHT:	TRENCH DEPTH 3'
		AIR: # EW-93R	PIPE DIA. 2"
		STATION: 0+00 to 2+80	LINEAR FT. 280'
		RISER HEIGHT:	TRENCH DEPTH 3'

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and started exposing around EW-102R so we could do liner repair and boot. Once we finished digging around well we made liner repair and boot around EW-102R. We then dug small trench to the existing 6" vacuum riser and then tied in to riser with a 6" 90 elbow point to new well. We then also cut and filled old well EW-102 with dirt and then put 6" slip cap with 3 lag screws. Once lateral was tied in we went over and started trenching on the 2" air and 8x4 forcemain coming from EW-93R. Once trench was done we put pipes in trench line and marked out pipe and set survey risers every 50ft mark. We then also went around and started installing pumps in wells. We started with EW-114R and set Pump at 101ft. We then went to EW-93R and set pump at 103ft. Then we went to EW-170 and set pump at 121ft and we also had to pinch off 2" air and forcemain and lower existing riser pipe. We then went over to EW-54R2 and set pump at 71.5ft. We then went over at EW-112R and set pump at 103ft and also set pump for EW-113R 102.5ft. We also had to cut wells EW-112R and EW-113R a foot below grade and put a 6X8 reducer with a flange sticking out around 4ft so we could set pump because wellheads were 3". We then went down and unloaded trucks and wrapped things up and left for the day.

[Signature] 6/3/13
CLIENT REPRESENTATIVE DATE

[Signature] 6/3/2013
AEGL SUPERINTENDENT DATE

[Signature] CQA
NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/4/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	2	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:	1-8"	STATION:	LINEAR FT.
QED PUMPS:	1	RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: # EW-304R	PIPE DIA. 6"
		STATION: 0+00 to 1+76	LINEAR FT. 176'
		RISER HEIGHT:	TRENCH DEPTH 3'
WEATHER & TIME INFORMATION		LATERAL: # EW-313R	PIPE DIA. 6"
		STATION: 0+00 to 0+14	LINEAR FT. 14'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: #	PIPE DIA.
DAILY CONDITIONS:		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
START TIME 7:00AM STOP TIME 5:15PM		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and started trenching on 6" laterals for EW-304R and EW-313R. While we were trenching on laterals we fused up risers and put them on stringers. Once trench was dug we then installed pipe in trench and went down and installed a 6" tee in lateral coming from EW-304R at station mark 1+60 for 6" lateral going to EW-313R. We then fused in lateral going to EW-313R to the port side of the 6" tee. We then got with SCS and had them isolate existing vacuum at EW-313. Once pipe was isolated we tied laterals to the existing 6" vacuum riser at EW-313 with a 6" 90 elbow. Once pipe was installed and tied in we then started hauling dirt to trench lines and started back filling trench. While we were back filling we also abandon old wells EW-313 with 6" slip cap with 3 lag screws and we also abandon EW-304 with a 6" slip cap with 3 lag screws also abandon the existing 6" vacuum riser with 6" butt cap. We also then put wellheads on new wells EW-313R and EW-304R after wells were back on line we called SCS and told them they could have the lines back. We then went up and abandon EW-41 with a 6" slip cap and 3 lag screws. We then went over to EW-63R2 and installed a pump at 117.5ft and rehooked up wellhead. Then surveyors came in today and shot all riser pipes so we went around and pulled all riser pipes out of the ground. We then went around and cleaned up all trash and pipe were ever we have been at. We then also went over and exposed around EW-111 the we forgot to abandon so we came abandon first thing in the morning. We then also staged dirt for laterals that we are doing tomorrow. Once all dirt was hauled we unloaded trucks and wrapped things up and left for the day.

NOTE: from here on out the billing of the water truck and pump goes on pipe line job

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



DATE: 6/5/2013

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # EW-153	PIPE DIA. 6"
VALVE STEMS:		STATION: 0+00 to 1+80	LINEAR FT. 160'
LAND-TEC WELLHEADS:		HAR: _____	TRENCH DEPTH 3' to 5'
IN-LINE SUMPS:		LATERAL: # EW-153	PIPE DIA. 6"
QED VAULT KITS:		STATION: 1+80 to 1+83	LINEAR FT. 23'
QED PUMPS:		RISER HEIGHT: _____	TRENCH DEPTH 5' to 7'
ENCASEMENTS:		LATERAL: # _____	PIPE DIA. _____
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		LATERAL: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		LATERAL: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		LATERAL: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		LATERAL: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		FORCEMAIN: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		AIR: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____

DAILY CONDITIONS:
clear

START TIME 7:00AM

STOP TIME 5:15PM

Today we started with our morning safety meeting and then went up on the hill and started trenching on 6" lateral for EW-153. Once we finished trenching we started by putting 60ft of 12" CMP for road crossing starting at 0+48 and ended at 1+08. Once we had cmp bolted up we then dug 6" pipe in trench and feed it thur the 12" cmp. We then went up and fused 6" 90 riser on pipe and put in place for EW-153. We then got with SCS to isolate the 12" header so we can do tie in. Once SCS gave us the ok we cut 12" riser and put a 12x6 saddle tee in dean out riser with a 12" flange with blind sticking out of the ground. Once 12x6 tee was installed we then tied in the 6" lateral for EW-153 to the 6" of the tee. We then started hualing dirt to trench line and started back filling trench line. While we were back filling the surveyours came in and shot pipe so we didn't have to set survey risers. We also put 4x4 post on each end of the road crossing and painted the tops of them blue. Once back filling was all done we unloaded trucks and wrapped things up and left for the day.

 6/5/2013
AEGL SUPERINTENDENT DATE

NAME & TITLE Donna Tolia COA



American
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Group Ltd.

AEGL DAILY DIARY

DATE: 6/6/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	1	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: # EW-157	PIPE DIA. 6"
		STATION: 0+00 to 0+59	LINEAR FT. 59'
		RISER HEIGHT:	TRENCH DEPTH 3'
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
rain	
START TIME	7:00AM
STOP TIME	1:30PM

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then did some clean up work until rain let down. Once the rain stopped for awhile we had a window so we went up and trenched 6" lateral going to EW-157. We started by abandon the remote side of the well and vacuum risers with 6" butt caps. We then installed a 6" to into EW-157 and ran 6" lateral over to EW-45R2 and installed a 6" riser by EW-45R2. We then put a 6" tee on top of the existing 6" vacuum at EW-45R2 with a 6" 90 elbow off the port side of the tee fo a vacuum source for EW-157. We then hooked back up 2" well heads for EW-157 and EW-45R2. Once we had lateral complete we then marked out pipe and started hualing dirt and backfilled trench. Once trench was back filled we wrapped things up because of the rain and left site.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

6/6/2013
DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/7/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: # EW-169	PIPE DIA. 2"
VALVE STEMS:		STATION: 0+00 to 1+50	LINEAR FT. 150'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 3'
IN-LINE SUMPS:		FORCEMAIN: # EW-169	PIPE DIA. 2"
QED VAULT KITS:		STATION: 0+00 to 1+50	LINEAR FT. 150'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3'
ENCASEMENTS:		AIR: # EW-93R	PIPE DIA. 2"
MISC. ITEMS / EXTRA DETAIL: (Described Below) 40ft of 12" cmp		STATION: 2+80 to 6+80	LINEAR FT. 400'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: # EW-93R	PIPE DIA. 8X4
		STATION: 2+80 to 6+80	LINEAR FT. 400'
		RISER HEIGHT:	TRENCH DEPTH 3'
WEATHER & TIME INFORMATION		AIR: # EW-228	PIPE DIA. 2"
		STATION: 0+00 to 1+50	LINEAR FT. 150'
		RISER HEIGHT:	TRENCH DEPTH 3'
		FORCEMAIN: # EW-228	PIPE DIA. 8X4
DAILY CONDITIONS: cloudy		STATION: 0+00 to 1+50	LINEAR FT. 150'
		RISER HEIGHT:	TRENCH DEPTH 3'
START TIME 7:00AM		FORCEMAIN: # EW-228	PIPE DIA. 8X4
		STATION: 0+00 to 1+50	LINEAR FT. 150'
STOP TIME 6:00PM		RISER HEIGHT:	TRENCH DEPTH 3'
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and trenched 2" air and forcemain lines to EW-169 coming from EW-158R. Once trench was dug we then installed pipes in trench and put 90 risers up at EW-169. We then went over and put 2" tees in at existing 2" air and forcemain for tie in. Once all pipes were tied in we then hauled dirt to trench line and started back filling trench line. We set survey risers every 50ft and fittings. While we were back filling we took other hoe over the hill and dug up air and forcemain to make sure we can tie into for where drillers went thur pipes 30ft down. Once we found pipes we set a survey riser on top of the pipe and backfilled hole. We then went over and trenched 2" air and 8X4 formain from EW-93R and EW-228. Once trench was dug we installed pipes in trench. We also put 12" CMP for road crossing on EW-93R lateral at 3+46 and ended at 3+86. Once all pipes were in both trenches we then put survey risers every 50ft mark and back filled trench lines. Once back filling was complete we unloaded trucks and then wrapped things up and left for the day.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE

NAME & TITLE



DATE: 6/9/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION			
DAILY CONDITIONS:			
START TIME _____			
STOP TIME _____			

Today we didn't work

CLIENT REPRESENTATIVE

DATE _____

AEGL SUPERINTENDENT

6/9/2013
DATE

NAME & TITLE



DATE: 6/10/2013

CLIENT/PROJECT# 202-13-100

Today we showed up to work but do to the rain we didn't work however 2 guys came back in on site to unload the 36" machine and generator from morain sales.

 6/10/2013
AEGL SUPERINTENDENT DATE

James A. Toldy CQA



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/11/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS: rain	
START TIME	7:00AM
STOP TIME	8:00AM

COMMENTS (Description of Work Order Completed):

Today we didn't work do to all the rain. However Bob stayed a went to the weekly meeting with the site.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



DATE: 6/12/2013

CLIENT/PROJECT# 202-13-008

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went up on the hill and finished trenching on air and force main line coming from EW-119R and EW-93R. While we were trenching we went over and exposed around EW-227 and EW-5R2 so we can do liner boots and repairs. After everything was exposed we made liner repairs and boots around EW-119R and EW-5R2 and then replace geo net and then back filled holes. We spent a total of 3hrs exposing around wells and doing liner boots and repairs. We then went over and installed a 8x4 dual contain forcemain tee and a 2" tee for the air lines coming from EW-119R and EW-93R to go to the isolation valves for tie in. Once we ran the pipe over to the tie in point we then put 90 elbow for both the 2" air and the 8x4 forcemain. We then installed a 2" tee and a 4" tee above ground on the existing air and forcemain isolation valves and installed a 2" valve on the air and a 4" valve on the forcemain so new line could be isolated if needed. We then went up and put air test on both laterals for EW-119R and EW-93R. We put 100psi on the air line and 40psi on the 8" pipe and 50psi on the inner 4" pipe on the forcemain. We put air test on for 1hr and after the 1hr Janet the QC passed air test. So we then went and installed pumps at EW-169,EW-119R and EW-93R. We installed pumps at EW-93R at 42ft, EW-119R at 110ft and EW-169 at 112ft. Once we installed pumps we then opened new valves for the air and forcemain and started pumps on wells. We also had to fuse a 6" flange with backup ring at EW-93R. Once pumps were working we went over and started getting ready to put air test on the 2" air and 8x4 forcemain coming from EW-228. We welded in a 8x4 endseal on the 8x4 forcemain line from EW-228 at station mark 1+87. Once lines were ready for air testing we wrapped things up and left for the day.

CLIENT REPRESENTATIVE

DATE _____

AEGL SUPERINTENDENT

DATE _____

NAME & TITLE



DATE: 6/13/2013

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	1
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	

WEATHER & TIME INFORMATION

Train

START TIME

STOP TIME

PIPELINE INSTALLATION DETAILS / Construction

HEADER: # _____ PIPE DIA.
 STATION: _____ LINEAR FT.
 HAR: _____ TRENCH DEPTH

HEADER: # _____ PIPE DIA.
 STATION: _____ LINEAR FT.
 RISER HEIGHT: _____ TRENCH DEPTH

LATERAL: # _____ PIPE DIA.
STATION: _____ LINEAR FT.
RISER HEIGHT: _____ TRENCH DEPTH

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

LATERAL: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

AIR: # _____ PIPE DIA. _____
STATION: _____ LINEAR FT. _____
RISER HEIGHT: _____ TRENCH DEPTH _____

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact of all the rain overnite and also still raining.

CLIENT REPRESENTATIVE**DATE**

AEGL SUPERINTENDENT

DATE _____

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/14/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: # EW-228	PIPE DIA. 2"
VALVE STEMS:		STATION: 1+87 to 2+07	LINEAR FT. 20'
LAND-TEC WELLHEADS:		HAR: _____	TRENCH DEPTH 3'
IN-LINE SUMPS:		FORCEMAIN: # EW-228	PIPE DIA. 4"
QED VAULT KITS:		STATION: 0+00 to 0+20	LINEAR FT. 20'
QED PUMPS:		RISER HEIGHT: _____	TRENCH DEPTH 3'
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		AIR: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		FORCEMAIN: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		AIR: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		FORCEMAIN: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____
		AIR: # _____	PIPE DIA. _____
		STATION: _____	LINEAR FT. _____
		RISER HEIGHT: _____	TRENCH DEPTH _____

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
sunny	
START TIME	7:00AM
STOP TIME	6:30PM

COMMENTS (Description of Work Order Completed):

Today we started with our safety meeting and then went up on the hill and finished trenching on air and forcemain to EW-228. We then exposed tie in point. We then put air test on the 2" air at 100psi and the 8" outer pipe we put 30psi and on the 4" inner pipe we put 50psi for 1hr. Once tie in was exposed Janet the QC passed air test so we then tied in both the 2" air and the 4" forcemain with tees into existing air and forcemain lines. We also went down and exposed around CS-5 and once liner was all exposed and pipes we then cut liner and started digging up old 8" sump so we could replace with new 24" sump. While we were trench up old sump we went down and built new 24" sump. Once sump was complete we carried it over to CS-5. Once we got down 10ft we found and old existing 2" air and forcemain line and hit them so we went down and buttcap both the 2" air and forcemain. We then trench beside the air and forcemain lines and found what was suppose to be a 8" line tied into the sump but come to find out it was only 4" so we welded a 4" buttcap and abandon line. So we then put strap on sump and finished pulling the old CS-5 out of the ground. Once sump was out of the way we wrapped things up and left for the day.

NOTE: We had to rent a 2" gas pump and used the water truck to pump water out of the hole do to the fact we are on capped area. Also our hole for the sump was 30ft by 30ft.

Janet A. Talia 6/14/13
CLIENT REPRESENTATIVE DATE

John B. C... 6/14/2013
AEGL SUPERINTENDENT DATE

Janet A Talia CEA
NAME & TITLE

DATE: 6/15/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: # 24" going to CS-5	PIPE DIA. 24"
VALVE STEMS:		STATION: 0+00 to 0+10	LINEAR FT. 10'
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH 3'
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:	1-6"	STATION:	LINEAR FT.
QED PUMPS:	1	RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION			
DAILY CONDITIONS:			
sunny			
START TIME 7:00AM			
STOP TIME 1:30PM			

Today we started with our morning safety meeting and then went over and started putting in 24" sump for CS-5. We started by taking eye piece and shooting bottom of hole to make sure we were deep enough once we found out we were deep enough we put some of the drillers left over rock on bottom do to all the water coming out of the trash. We then installed sump and tied into the existing 24" header tee with a 24" EFC. Once the 24" EFC was on we then fried the coupler to the 24" we then took the liner gun and welded around coupler. We then backfilled around sump up to the liner. Once back filling was complete we dropped a pump down new 24" sump 13ft. Pump was 1.5ft off the bottom of the sump. We then had to install a 2" tee riser for the air line at CS-5. Once the forcemain and air was in place we hooked up pump. Once we got the sump up and running we told SCS that they could have there header system back. We clean up around sump hole and wrapped things up and left for the day.

NOTE: We took back the 2" gas pump back to sun belt so it was off rent

D. J. Media 4/15/13
CLIENT REPRESENTATIVE DATE
Bret A. Todd CSA
NAME & TITLE

 6/15/2013
AEGLE SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/16/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	
MISC. ITEMS / EXTRA DETAIL: (Described Below)	
WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
AIR: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
FORCEMAIN: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
AIR: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
FORCEMAIN: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH

Today we didn't work

Justin M. Boda 6/16/13
CLIENT REPRESENTATIVE DATE
Ben A. Todd CQA
NAME & TITLE

Joe B. Boda 6/16/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 6/17/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION	
LINEAR FEET OF DRILLING	HEADER #	PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT	STATION	LINEAR FT.
LINEAR FEET OF WELL COMPLETION		TRENCH DEPTH
PERFORATED PIPE-DIA.	SUBHEADER #	PIPE DIA.
SOLID PIPE -DIA.	STATION	LINEAR FT.
		TRENCH DEPTH
COMPLETION: (WELL NUMBERS)	LATERAL #	PIPE DIA.
	STATION	LINEAR FT.
		TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
GENERAL INFORMATION	LATERAL: #	PIPE DIA.
WEATHER CONDITIONS	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
START TIME <u>7:00 a.m.</u>	AIRLINE	FM
STOP TIME <u>3:00 p.m.</u>		

COMMENTS:

Began excavating sump CS-21 for replacement and then told by client to backfill excavation if project could not be completed by 2:00 pm tomorrow due to presence of EPA and meeting for vertical height expansion. Backfilled excavation completely and then rain began.

Joe M. M. 6/17/13
CLIENT REPRESENTATIVE DATE
Scott A. Todio COA
NAME & TITLE

Bob Minol 6/17/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 6/18/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	STATION _____ TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	STATION _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	STATION # _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE _____ FM _____

COMMENTS:

Fused 2" and 4" for air and fm replacement and placed on air test. Installed 4" access risers on 24" header at CS-5 location.

Reconnected 2" airline and isolation valve and reinstalled fiberglass encasement at CS-5.

Paul M. Loria 6/18/13
CLIENT REPRESENTATIVE DATE
Ernest A. Tedis COA
NAME & TITLE

Bob Minor 6/18/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 6/19/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION	
LINEAR FEET OF DRILLING	HEADER #	PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT	STATION	LINEAR FT.
LINEAR FEET OF WELL COMPLETION		TRENCH DEPTH
PERFORATED PIPE-DIA.	SUBHEADER #	PIPE DIA.
SOLID PIPE -DIA.	STATION	LINEAR FT.
COMPLETION: (WELL NUMBERS)		TRENCH DEPTH
	LATERAL #	PIPE DIA.
	STATION	LINEAR FT.
		TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
GENERAL INFORMATION	LATERAL: #	PIPE DIA.
WEATHER CONDITIONS	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
	LATERAL: #	PIPE DIA.
	STATION	LINEAR FT.
	RISER HEIGHT	TRENCH DEPTH
START TIME 7:00 a.m.	AIRLINE	FM
STOP TIME 5:15 p.m.		

COMMENTS:

Reexcavated CS-21. Fused 520'ft of 6" perf for french drain. Pulled survey risers.

James A. Tolia 6/19/13
CLIENT REPRESENTATIVE DATE
James A. Tolia CQA
NAME & TITLE

Bob Minor 6/19/13
AEGLE SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 6/20/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE _____ FM _____
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>5:45 p.m.</u>	

COMMENTS:

Removed, refabricated, and reinstalled CS-21. Backfilled excavation.

David L. Lohr 6/20/13
CLIENT REPRESENTATIVE DATE
David L. Lohr COA
NAME & TITLE

Bob Minor 6/20/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

DAILY DIARY

DATE: 6/21/2013

PROJECT NAME LORAIN COUNTY

PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # _____ PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT	STATION _____ LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION	STATION _____ TRENCH DEPTH _____
PERFORATED PIPE-DIA.	SUBHEADER # _____ PIPE DIA. _____
SOLID PIPE -DIA.	STATION _____ LINEAR FT. _____
COMPLETION: (WELL NUMBERS)	STATION _____ TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	STATION _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL: # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	LATERAL # _____ PIPE DIA. _____
	STATION _____ LINEAR FT. _____
	RISER HEIGHT _____ TRENCH DEPTH _____
	AIRLINE 2'- _____ 140 _____ FM 4'- _____ 140 _____
GENERAL INFORMATION	
WEATHER CONDITIONS	
START TIME <u>7:00 a.m.</u>	
STOP TIME <u>7:00 p.m.</u>	

COMMENTS:

Backfilled remainder of CS-21 excavation. Installed 140'ft of air and fm to replace section which was abandoned when drilled through.

Robert Todia 6/21/13
CLIENT REPRESENTATIVE DATE
Robert Todia CAA
NAME & TITLE

Bob Minor 6/21/13
AEGL SITE SUPERVISOR DATE



DATE: 6/22/2013

DRILLING		CONSTRUCTION	
LINEAR FEET OF DRILLING _____		HEADER # _____	PIPE DIA. _____
LINEAR FEET OF DRILLING-ABANDONMENT _____		STATION _____	LINEAR FT. _____
LINEAR FEET OF WELL COMPLETION _____		SUBHEADER # _____	TRENCH DEPTH _____
PERFORATED PIPE-DIA. _____		STATION _____	PIPE DIA. _____
SOLID PIPE -DIA. _____		LATERAL # _____	LINEAR FT. _____
COMPLETION: (WELL NUMBERS) _____		STATION # _____	TRENCH DEPTH _____
_____		LATERAL: # _____	PIPE DIA. _____
_____		STATION _____	LINEAR FT. _____
_____		RISER HEIGHT _____	TRENCH DEPTH _____
GENERAL INFORMATION		LATERAL: # _____	PIPE DIA. _____
WEATHER CONDITIONS _____		STATION _____	LINEAR FT. _____
_____		RISER HEIGHT _____	TRENCH DEPTH _____
START TIME 7:00 a.m.		LATERAL # _____	PIPE DIA. _____
STOP TIME 3:00 p.m.		STATION _____	LINEAR FT. _____
		RISER HEIGHT _____	TRENCH DEPTH _____
		AIRLINE 2"- 140	FM 4"- 140

Installed road crossing for air and fm replacement lines. Installed tee's with risers fo air and fm at EW-39R2. Loaded and hauled soil for air and fm trench and more for CS-21.

Bob Minor 6/22/13
AEGLE SITE SUPERVISOR DATE



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DAILY DIARY

DATE: 6/23/2013

PROJECT NAME LORAIN COUNTY
PROJECT# 20213100

DRILLING	CONSTRUCTION
LINEAR FEET OF DRILLING	HEADER # PIPE DIA.
LINEAR FEET OF DRILLING-ABANDONMENT	STATION LINEAR FT.
LINEAR FEET OF WELL COMPLETION	STATION TRENCH DEPTH
PERFORATED PIPE-DIA.	SUBHEADER # PIPE DIA.
SOLID PIPE -DIA.	STATION LINEAR FT.
COMPLETION: (WELL NUMBERS)	STATION TRENCH DEPTH
	LATERAL # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
	LATERAL: # PIPE DIA.
	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
GENERAL INFORMATION	LATERAL: # PIPE DIA.
WEATHER CONDITIONS	STATION LINEAR FT.
	RISER HEIGHT TRENCH DEPTH
START TIME	LATERAL # PIPE DIA.
	STATION LINEAR FT.
STOP TIME	RISER HEIGHT TRENCH DEPTH
	AIRLINE FM

COMMENTS:

Sunday. No work.

Janet A. Todia 6/23/13
CLIENT REPRESENTATIVE DATE
Janet A. Todia CDR
NAME & TITLE

Bob Minor 6/23/13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/24/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	
IN-LINE SUMPS:	
QED VAULT KITS:	
QED PUMPS:	
ENCASEMENTS:	
MISC. ITEMS / EXTRA DETAIL: (Described Below)	
WEATHER & TIME INFORMATION	
DAILY CONDITIONS: clear	
START TIME 7:00AM	
STOP TIME 7:00PM	

HEADER: #	PIPE DIA.
STATION:	LINEAR FT.
HAR:	TRENCH DEPTH
HEADER: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
LATERAL: #	PIPE DIA.
STATION:	LINEAR FT.
RISER HEIGHT:	TRENCH DEPTH
FORCEMAIN: # EW-39R2	PIPE DIA. 4"
STATION: 1+40 to 6+72	LINEAR FT. 532'
RISER HEIGHT:	TRENCH DEPTH 3'
AIR: # EW-39R2	PIPE DIA. 2"
STATION: 1+40 to 6+72	LINEAR FT. 532'
RISER HEIGHT:	TRENCH DEPTH 3'

Today we started with our morning safety meeting and then went up on top of the hill and finished trench on the 2" air and 4" forcemain coming from EW-39R2. While we were trenching we went around and started cleaning up parts and trash. Once we had trash and pipe cleaned up on the hill we went down and moved all the extra parts over to the bone yard. We then went back up on top of the hill and tie in the 2" air and 4" forcemain to the existing isolation valves with tees. After tie in was complete we then started backfilling and hauling dirt too trench line. We set survey risers every 50ft marks and fittings. Once backfilling was complete we then started building bench on the 6" french drain so we can get the trucks up to the trench line. Once we had bench done on one side we wrapped things up and left for the day.

Jeff M. Loria 6/24/13
CLIENT REPRESENTATIVE DATE
Bray A. Tabor CEA
NAME & TITLE

John B. Galt
AEGL SUPERINTENDENT DATE
6/24/2013



DATE: 6/25/2013

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # 6" French Drain	PIPE DIA. 6"
VALVE STEMS:		STATION: 0+00 to 1+94	LINEAR FT. 1+94
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 5' to 7'
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:	1-8"	STATION:	LINEAR FT.
QED PUMPS:	1	RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
WEATHER & TIME INFORMATION		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
DAILY CONDITIONS:		RISER HEIGHT:	TRENCH DEPTH
		clear/rain	
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
START TIME 7:00AM		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
STOP TIME 5:00AM		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

Today we started with our safety meeting and then went over on the north slope and started trenching on the 6" french drain. Once we started trenching we went behind and started putting rock on bottom of the trench and putting it on grade we put 1ft in the bottom of trench with rock. We then installed pipe in trench line and set survey risers every 50ft mark and fittings and covered pipe up with 2ft of stone. Once stone was on top of the pipe we rolled fabric down trench line on top of the stone and then finished backfilling trench line. Once trench line was backfilled we also then had to go up on the hill and install a pump in well EW-39R2 so the EPA guy could watch and understand how a pump works in a well. We set pump in EW-39R2 at 92ft and the S/N# is 4-8931. We then wrapped things up and left for the day.

DATE _____

NAME & TITLE



DATE: 6/26/2013

[illegible]

Today we started with our morning safety meeting and then went up on the hill and dug down on the air and forcemain at EW-58R2 to see what was wrong with the forcemain once we exposed the forcemain we cut pipe and turn pump back on at EW-63R2 to see if pump would started to work. The pump was working so we came up with that the forcemain line has too much pressure in it and it wont let the pumps work. so we weld line back together and buried hole. We then started trenching on 6" lateral that they added on at EW-9R3 and ran it down to the existing riser at EW-119R and tied into 6" line with a 6" tee. We then backfilled trench line and set survey risers every 50ft mark and fittings and also rolled caution tape down trench line. We also then loaded the stone up from the top and hauled it down to where we are putting the 6" french drain. Once all stone was down to the bottom we then hauled dirt and finished building bench for the trucks on the french drain. We then went up and fixed wash out on the air and forcemain line from EW-39R2 and put waterway back in before all the rain came back in. We then wrapped things up and left for the day.

AGENT REPRESENTATIVE James C. Tobie DATE 6/26/13


AEGL SUPERINTENDENT

6/26/2013
DATE

Bret A. Dild CQA
NAME & TITLE



American
Environmental
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AEGL DAILY DIARY

DATE: 6/27/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:	1	HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
rain	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didn't work do to the fact of all the rain overnite and also still raining.

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 6/28/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		FORCEMAIN: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
cloudy	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didnt work do to all the rain and too muddy.

Michael W. ... 6/28/13
CLIENT REPRESENTATIVE DATE

Teresa A. ... CRA
NAME & TITLE

[Signature]
AEGL SUPERINTENDENT

6/28/2013
DATE

**AEGL DAILY DIARY**

DATE: 6/29/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		RISER HEIGHT:	TRENCH DEPTH
IN-LINE SUMPS:		LATERAL: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS:		AIR: #	PIPE DIA.
rain		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
START TIME _____		RISER HEIGHT:	TRENCH DEPTH
STOP TIME _____			

Today we didn't work to the fact of the rain and mud.

Paul A. Trcka 6/29/13
CLIENT REPRESENTATIVE DATE

Encladida CPA
NAME & TITLE

 6/29/2013
AEGL SUPERINTENDENT DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

PROJECT NAME:

Lorain County Landfill

DATE:

6/30/2013

CLIENT/PROJECT#

202-13-100

MISC. INSTALLED ITEMS / Construction

INSTALLED ITEM

INSTALLED QUANTITY

VALVES:

VALVE STEMS:

LAND-TEC WELLHEADS:

IN-LINE SUMPS:

QED VAULT KITS:

QED PUMPS:

ENCASEMENTS:

MISC. ITEMS / EXTRA DETAIL: (Described Below)

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

START TIME _____

STOP TIME _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

Today we didn't work

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SUPERINTENDENT

DATE

6/30/2013



DATE: 7/1/20.

MISC. INSTALLED ITEMS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY
VALVES:	
VALVE STEMS:	
LAND-TEC WELLHEADS:	
IN-LINE SUMPS:	
QED VAULT KITS:	2-8"
QED PUMPS:	2
ENCASEMENTS:	

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
clear	
START TIME	7:00AM
STOP TIME	6:00PM

HEADER: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
HAR: _____	TRENCH DEPTH _____
HEADER: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
LATERAL: # _____	PIPE DIA. _____
STATION: _____	LINEAR FT. _____
RISER HEIGHT: _____	TRENCH DEPTH _____
FORCEMAIN: # EW-316	PIPE DIA. 4"
STATION: 0+00 to 0+10	LINEAR FT. 10'
RISER HEIGHT: _____	TRENCH DEPTH 3'
AIR: # EW-316	PIPE DIA. 2"
STATION: 0+00 to 0+10	LINEAR FT. 10'
RISER HEIGHT: _____	TRENCH DEPTH 3'

Today we started with our morning safety meetings and then started hauling dirt and dressing up 6" french drain line on the north slope. While we were doing that we went up on the hill and installed a pump at EW-48R S/N# 4-8929 at 86ft. We then went over and installed a pump at EW-228 S/N#4-8947 at 103ft. We also had to weld up a 8x6 reducer with a flange on top for well because the existing wellhead is 3". Once we finished putting pumps in we then went over and had to locate the air and forcemain at the 12" header on the north slope so we could run it to EW-316. Once we located and exposed tie in point for the air and forcemain we then tied into the existing pipes with a 2" tee and a 4" tee and ran it to EW-316. Once both pipes were installed and tie in we then back filled trench and set survey risers on both ends of the lateral. We spent from 1:00PM to 6:00PM on digging up tie in and installing pipe and back filling it was a total of 5hrs at T&M rate. Once we finished back filling we wrapped things up and left for the day.

Paula Lopez 7/11/13
CLIENT REPRESENTATIVE DATE
Donet A. Bedia CCA
NAME & TITLE


ABGL SUPERINTENDENT **DATE** 7/1/2013



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 7/1/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		LATERAL: # 6" French Drain	PIPE DIA. 6"
VALVE STEMS:		STATION: 1+94 to 3+06	LINEAR FT. 112'
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH 5' to 7'
IN-LINE SUMPS:		LATERAL: # 6" French Drain at	PIPE DIA. 6"
QED VAULT KITS:	1-6"	STATION: 0+00 to 1+17	LINEAR FT. 117'
QED PUMPS:	1	RISER HEIGHT:	TRENCH DEPTH 5' to 7'
ENCASEMENTS:		HORIZONTAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
WEATHER & TIME INFORMATION		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
DAILY CONDITIONS: Clear		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		START TIME 7:00AM STOP TIME 6:00AM	
STATION:	LINEAR FT.		
RISER HEIGHT:	TRENCH DEPTH		
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

COMMENTS (Description of Work Order Completed):

Today we started with our morning safety meeting and then went over and finished trenching on the 6" french drain on the north slope. While we were trenching we went over and installed a pump at EW-316 S/N#4-8951 at 52ft. We then went over and started installing french drain. We started by putting rock on bottom of the trench 1ft thick. Once all of the bottom of the trench was rock we then put 6" perf pipe on top of the rock and then put 2ft of rock on top of the pipe. We then dug a sump hole 12ft deep and installed sump. Once sump was installed we filled sump hole with rock. Once sump and both 6" laterals were tie in to the sump we finished rocking over the pipe and then rolled fabric on top of the rock and started backfilling trench lines. We set survey risers every 50ft mark. Once backfilling was all done we wrapped things up and left for the day.

Amelia 7/2/13
CLIENT REPRESENTATIVE DATE
Robert A. Todd COA
NAME & TITLE

[Signature] 7/2/2013
AEGL SUPERINTENDENT DATE



DATE: 7/3/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT# 202-13-008

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: # French Drain sump	PIPE DIA. 2"
VALVE STEMS:		STATION: 0+00 to 0+08	LINEAR FT. 8'
LAND-TEC WELLHEADS:	2	RISER HEIGHT:	TRENCH DEPTH 3'
IN-LINE SUMPS:		FORCEMAIN:# French Drain sump	PIPE DIA. 4"
QED VAULT KITS:		STATION: 0+00 to 0+08	LINEAR FT. 8'
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH 3'
ENCASEMENTS:		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN:#	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN:#	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN:#	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN:#	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

MISC. ITEMS / EXTRA DETAIL: (Described Below)

WEATHER & TIME INFORMATION

DAILY CONDITIONS:
sunny/muddy

START TIME 7:00AM

STOP TIME 3:00PM

Today we started with our safety meeting and then went over and exposed around existing sump on the north side 12" sump so we could tie in to the 2" air and 4" forcemain to go to the 6" french drain sump. Once tie in was exposed and trenched to the 6" french drain sump we tied in to the existing air and forcemain with tees port side of the tee pointing to the 6" french drain sump. We then ran pipes to sump and 90 risers at 6" french drain sump. We then tied into the port side of the tees at the existing 12" sump. We then went over to each end of the 6" french drain and installed wellheads and hooked them up to the existing vacuum risers. Once everything was tied in we then started doing dress up work. Also the surveyors came in today and shot all riser pipes so we pulled all riser pipes out of the ground. While we were doing dress up work we started hauling all pipe and fittings to the bone yard. We also clean up trash around staging area. We then wrapped things up and left for the day.

CLIENT REPRESENTATIVE

DATE _____

A EGL SUPERINTENDENT

DATE _____

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 7/4/2013

PROJECT NAME: Lorain County Landfill
CLIENT/PROJECT#: 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
MISC. ITEMS / EXTRA DETAIL: (Described Below)		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME _____	
STOP TIME _____	

COMMENTS (Description of Work Order Completed):

Today we didn't work

CLIENT REPRESENTATIVE

DATE

AEGL SUPERINTENDENT

DATE

NAME & TITLE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

DATE: 7/5/2013

PROJECT NAME: Lorain County Landfill

CLIENT/PROJECT# 202-13-100

MISC. INSTALLED ITEMS / Construction		PIPELINE INSTALLATION DETAILS / Construction	
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		AIR: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		FORCEMAIN: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:			
MISC. ITEMS / EXTRA DETAIL: (Described Below)		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		AIR: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

WEATHER & TIME INFORMATION	
DAILY CONDITIONS:	
START TIME	
STOP TIME	

COMMENTS (Description of Work Order Completed):

Today we didnt work.

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SUPERINTENDENT

DATE



American
Environmental
Group Ltd.

AEGL DAILY DIARY

PROJECT NAME:

Lorain County Landfill

DATE:

7/7/2013

CLIENT/PROJECT#

202-13-100

MISC. INSTALLED ITEMS / Construction

INSTALLED ITEM

INSTALLED QUANTITY

VALVES:

VALVE STEMS:

LAND-TEC WELLHEADS:

IN-LINE SUMPS:

QED VAULT KITS:

QED PUMPS:

ENCASEMENTS:

MISC. ITEMS / EXTRA DETAIL: (Described Below)

WEATHER & TIME INFORMATION

DAILY CONDITIONS:

START TIME _____

STOP TIME _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

LATERAL: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

AIR: # _____

STATION: _____

RISER HEIGHT: _____

FORCEMAIN: # _____

STATION: _____

RISER HEIGHT: _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

PIPE DIA. _____

LINEAR FT. _____

TRENCH DEPTH _____

Today we didn't work

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SUPERINTENDENT

DATE



DATE: 7/8/2013

MISC. INSTALLED ITEMS / Construction			
INSTALLED ITEM	INSTALLED QUANTITY		
VALVES:		HEADER: #	PIPE DIA.
VALVE STEMS:		STATION:	LINEAR FT.
LAND-TEC WELLHEADS:		HAR:	TRENCH DEPTH
IN-LINE SUMPS:		HEADER: #	PIPE DIA.
QED VAULT KITS:		STATION:	LINEAR FT.
QED PUMPS:		RISER HEIGHT:	TRENCH DEPTH
ENCASEMENTS:		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
MISC. ITEMS / EXTRA DETAIL: (Described Below)		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
		LATERAL: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
WEATHER & TIME INFORMATION		LATERAL: #	PIPE DIA.
DAILY CONDITIONS:		STATION:	LINEAR FT.
clear		RISER HEIGHT:	TRENCH DEPTH
		FORCEMAIN: #	PIPE DIA.
		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH
START TIME 7:00AM		AIR: #	PIPE DIA.
STOP TIME 4:00PM		STATION:	LINEAR FT.
		RISER HEIGHT:	TRENCH DEPTH

Today we started with our morning safety meeting and then went up on the hill and started doing final dress up work with the dozer. While we were doing dress up work we took all pipes from the staging area and up on the hill and took them to the bone yard. We then went around and litter lugged some of our laterals. We then also loaded up our flat bed trailer and job trailer to get ready to move out. We clean up all trash around working areas. We then went around and started putting reflector tape around wells and vacuum risers. We also dug around EW-13R2 and removed all trash with hoe and hauled a load of dirt to EW-13R2 and dressed up around well. We then went down and wrapped up all hoses to the water pump and moved water pump over by the job trailer so cat can pick it up. We then wrapped things up and left for the day.

DATE _____

DATE _____

NAME & TITLE

Appendix B: Construction Photographs and Description Logs

(CD Enclosed)

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2013 EOCOS - Construction Certification Report - Photograph Log

Date	Photo ID	Direction	Description
1/12/2013	100 1996	N	Drilling EW302R; note original EW302 marked with orange flag
1/16/2013	100 2080	NW	EW49R3 drilled, completed well
1/17/2013	100 2094	S	Hydrate bentonite EW324
1/21/2013	100 2136	NE	SDR17 (6") pipe pressure test
1/21/2013	100 2139	E	Excavation for 6" lateral EW301 to supply vacuum to EW302R
1/21/2013	100 2148	E	Tie in 6" lateral EW301 to supply vacuum to EW302R
1/28/2013	100 2191	SE	Raise force main isolation valve in active phase by 22' to accommodate lifts of additional waste
2/1/2013	100 2196	W	12" header with 12" x 6" reducers for lateral tie ins to the termination of the 12" header on the west side
2/5/2013	100 2230	S	EW47R2 (stake) prior to drilling. Air, fence main, and 6" lateral installed prior to drilling to avoid hitting conveyance lines below grade
2/6/2013	100 2250	SW	Road crossing to supply vacuum to EW325 from EW315R (Corrugated Metal Pipe, CMP)
2/7/2013	100 2287	NE	Brick in place for road crossing EW323 to EW315R
2/7/2013	100 2288	SW	Caution tape in place for lateral run to supply vacuum to new well EW323 via EW315R
2/9/2013	100 2291	N	Shared vacuum source for new well EW324 via H15N and EW318
2/15/2013	100 2336	NW	EW50R2 vacuum restored via 6" lateral ultimately connected to EW321 and air and force main installed from source EW54R2 to EW50R2
2/15/2013	100 2344	N	Run 6" lateral to supply vacuum to EW321 above grade
5/7/2013	100 2366	W	EW115R2 prior to re-drill
5/7/2013	100 2367	W	Drill EW128R2
5/7/2013	100 2369	W	Remove drill cuttings EW128R2; note use of deodorizer drum run by generator
5/7/2013	100 2374	NW	Wells pre fabricated for installation
5/7/2013	100 2381	W	EW128R with newly drilled EW128R2 in background prepared for installation of bentonite seal
5/8/2013	100 2388	NW	Installation of well casing EW51R2
5/13/2013	100 2424	W	12" x 6" gusseted vacuum connection for EW42R at the east end of the 12" termination riser
5/13/2013	100 2432	NW	Trench 6" lateral connection to supply vacuum to EW51R2 via EW54R2
5/13/2013	100 2434	N	6" Lateral installed in trench to supply vacuum to EW51R2 via EW54R2
5/13/2013	100 2345	NW	EW54R2 Complete with new air and force main risers connected to 6" above grade lateral for vacuum source
5/13/2013	100 2446	E	No. 4 stone supplied to well EW55R
5/14/2013	100 2457	SE	6" lateral connection to EW54R2 (below grade)
5/14/2013	100 2471	NW	Attempt to pull pump out of EW56R with excavator
5/16/2013	100 2497	Ground	Proper abandonment and restoration of vacuum to new well EW56R2

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2013 GCSS - Construction Certification Report - Photograph Log

Date	Photo ID	Direction	Description
5/16/2013	100 2605	S	EW326 trench for vacuum source via EW22R
5/17/2013	100 2518	E	Trench for 6" lateral to supply vacuum to EW39R2 via EW159
5/17/2013	100 2519	S	TEM7R2 drilling bore heavily impacted by sludge; achieved 95' on 120' scheduled bore depth due to refusal by sludge
5/17/2013	100 2529	Ground	EW39R2 abandonment of old well (slip cap) and former vacuum source (butt cap)
5/18/2013	100 2549	N	Installation of 2" x 4" dual contained force main and 2" air line run from EW112R to EW125R2
5/20/2013	100 2578	W	TEM7R2 bore seal (including air and force main) properly repaired in the cap
5/21/2013	100 2583	E	Proper repair of abandoned bore at 111R; first attempt encountered refusal at 21' due to impacting steel object below grade
5/26/2013	100 2594	S	Bore seal repair EW326 (new well) showing 6" lateral connection to EW22R
5/22/2013	100 2623	Ground	Tensiometer used for shear and peel tests
5/29/2013	100 2660	Ground	EW3R3 heavily impacted by sludge while drilling bore; Well casing set at 108' on 120' scheduled bore
6/3/2013	100 2749	W	Preparation of 4" x 8" dual contained force main
6/3/2013	100 2750	W	4" x 8" dual contained force main
6/5/2013	100 2798	SW	Restoration of vacuum to EW153R via 12" subheader (west termination insert) in point; road crossing with Corrugated Metal Pipe (CMP)
6/7/2013	100 2836	S	Road crossing (CMP) for 2" air line and 4" x 8" force main from EW33R to EW119R
6/7/2013	100 2837	SW	EW22R: 2" air and 4" x 8" force main run from below grade to in point due south of isolation valves
6/15/2013	100 2946	E	CS-5 removed, refabricated, and newly installed
6/19/2013	100 2990	E	Original CS-21: Both 12" T's failed due to impact from upheaval of the sump due to liquid displacement from run off
6/20/2013	100 3014	N	Original CS-21: Both 12" T's failed due to impact from upheaval of the sump due to liquid displacement from run off
6/12/2013	13	Ground	Use of pipe pinchers to isolate force main prior to tie in of force main for the new pump at EW22R
6/25/2013	77	NE	No. 4 stone set for installation at the north horizontal collector
6/25/2013	82	E	No. 4 stone placed in trench for north horizontal collector
6/25/2013	85	W	Geotextile fabric placed in trench for north horizontal collector (with survey risers to survey top of pipe)
6/26/2013	100	N	Restore vacuum to EW3R3 via 6" lateral connection to EW119R
6/26/2013	107	NE	Survey risers indicating placement of new 2" air and 2" force main repair from west side of head road to EW39R2
7/2/2013	146	NW	Installation of sump reservoir in north horizontal collector
7/2/2013	152	Ground	North horizontal collector (perforated) with 6" lateral connection to vacuum source H12
7/3/2013	163	W	North horizontal collector: Shared vacuum source H12 and well head for north horizontal east

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Appendix C:

Resumes for CQA Certifying Engineer and Monitors

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Richard A. Isaac, P.E.

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Experience Summary

Mr. Isaac has 32 years of extensive experience managing, performing, and certifying engineering design, permitting, and construction quality assurance (CQA) programs for new land disposal and other solid and hazardous waste management facilities. Rick's CQA experience includes landfills in Ohio, Virginia, West Virginia, Pennsylvania, and Maryland for new cell construction, final cover system construction and final landfill closure, and landfill gas collection and control system (GCCS) installations. Rick has prepared and certified construction quality assurance plans (CQAPs) for landfills used as the basis for performing field oversight and CQA services. Rick has managed and certified the CQA activities on recent projects for Republic in Ohio at the

Assignment

Certified Engineer

Education

B.S. Civil Engineering, West Virginia University, Morgantown, 1978

Registration

Professional Engineer in Ohio, Pennsylvania, Michigan, Mississippi, and Louisiana; West Virginia (retired status); Virginia (retired status); Colorado (retired status); Wyoming (retired status); and Montana (retired status)

Training

OSHA 29 CFR 1910.120, Health and Safety Training

Experience

32 Years

Joined Firm

2007

Relevant Expertise

- Solid and Hazardous Waste Management
- CERCLA, RCRA, and Remediation
- Site Assessments and Investigations
- Regulatory Compliance
- Storm Water/Surface Water Management
- Abandoned Mine Lands and Mining

Lorain County II Landfill, County Environmental of Wyandot Landfill, County Land Development (CLD) Landfill, and Lewis Landfill (Closed). Rick has successfully completed and received approval of Construction Certification Reports from the Ohio Environmental Protection Agency (Ohio EPA) for various types of construction at each of these landfills.

In addition, Rick brings to his work extensive experience in managing feasibility studies (FS) and remedial design/remedial action (RD/RA) for Superfund sites under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and state-led remedial sites, as well as managing corrective measures studies (CMS) and implementation of remediation systems for operating facilities under Resource Conservation and Recovery Act (RCRA). Rick also possesses extensive experience with bid procurement services including preparation of contract documents, technical specifications, and construction drawings for a wide variety of projects including solid and hazardous waste facilities, remediation, and the cleaning and demolition of buildings, both municipal and industrial. Rick participates in and/or conducts pre-bid and pre-construction meetings, bid review, evaluation, recommendation, and contract award.

Solid and Hazardous Waste Management

County Land Development Landfill Closure CQA Services, Republic Services, Inc., Salem, Ohio

Managed the CQA for the implementation of final closure activities at a sanitary/construction demolition debris (C&DD) landfill in Salem, Ohio.

Managed the CQA for the implementation of final closure activities at a sanitary/construction demolition debris (C&DD) landfill in Salem, Ohio. Provided direction to the field inspectors who were onsite full-time throughout the duration of the final closure implementation including final cover construction, landfill gas management system expansion, and storm water controls. Managed and assisted in the preparation, performed quality assurance (QA) review, and served as the "Engineer of Record" for the Final Closure Certification Report submitted to the Ohio EPA to document the implementation of the final landfill closure construction.

County Environmental of Wyandot Landfill Gas Design and CQA Services, Republic Services, Inc., Carey, Ohio

Managed the CQA for the expansion of the landfill gas management system at a landfill in Carey, Ohio. Provided direction to the field

inspectors who were onsite full-time throughout the duration of the expansion implementation activities. The expansion activities included installation of an enclosed flare station, condensate sumps, 24-inch diameter high-density polyethylene (HDPE) header pipeline, laterals to new and re-drilled gas extraction wells, condensate and airlines, and road crossings. Managed the preparation and provided QA review of the construction drawings for the landfill gas management system expansion. Assisted in the preparation, performed QA review, and served as the "Engineer of Record" for the Certification Report submitted to the Ohio EPA to document the landfill gas system expansion installation. Managed the CQA for the expansion of the landfill gas management system at a landfill in Carey, Ohio. Provided direction to the field inspectors who were onsite full-time throughout the duration of the expansion implementation activities. The expansion activities included installation of an enclosed flare station, condensate sumps, 24-inch diameter high-density polyethylene (HDPE) header pipeline, laterals to new and re-drilled gas extraction wells, condensate and airlines, and road crossings. Managed the preparation and provided QA review of the construction drawings for the landfill gas management system expansion. Assisted in the preparation, performed QA review, and served as the "Engineer of Record" for the Certification Report submitted to the Ohio EPA to document the landfill gas system expansion installation.

Lorain County II Landfill Gas Design and CQA Services, Republic Services, Inc., Oberlin, Ohio

Managed the CQA for the expansion of the landfill gas management system at a landfill in Oberlin, Ohio. Provided direction to the field inspectors who were onsite full-time throughout the duration of the expansion implementation activities. The expansion activities included installation of an enclosed flare station, condensate sumps, 24-inch and 18-inch diameter HDPE header pipelines, laterals to new and re-drilled gas extraction wells, condensate and airlines, and road crossings. Managed the preparation and provided QA review of the construction drawings for the landfill gas management system expansion. Assisted in the preparation, performed QA review, and served as the "Engineer of Record" for the Certification Report submitted to the Ohio EPA to document the landfill gas system expansion installation.

Lorain County I Landfill Gas CQA Services, Allied Waste Industries, Inc., Oberlin, Ohio

Managed the CQA for the expansion of the landfill gas management system at a closed landfill in Oberlin, Ohio. Provided direction to the field inspectors who were onsite full-time throughout the duration of the expansion implementation activities. The expansion activities included installation of 8-inch diameter HDPE header pipelines, laterals to new and re-drilled gas extraction wells, installation of Landtec combination wellheads, leachate system force main, condensate and airlines, and road crossings. Assisted in the preparation, performed QA review, and served as the "Engineer of Record" for the Certification Report submitted to the Ohio EPA to document the landfill gas system expansion installation.

Cherokee Run Landfill Gas Design Services, Republic Services, Inc., Bellefontaine, Ohio

Managed the design of the expansion of the landfill gas management system at a landfill in Bellefontaine, Ohio. Provided direction to the design engineers who prepared the construction drawings and details for use by the installer to construct the landfill gas management system expansion. The expansion activities included installation of a condensate sump, 18-inch diameter HDPE header pipeline, laterals to new and re-drilled gas extraction wells, and condensate and airlines. Provided QA review of the construction drawings for the landfill gas management system expansion.

Noble Road Landfill Vertical Expansion Perimeter Berm Design, Republic Services, Inc., Shiloh, Ohio

Managed the design of a perimeter berm used to expand the available air space at a landfill in Shiloh, Ohio. Provided direction and assisted staff engineers in the preparation of "construction-ready" design drawings for use by contractors in preparation of bids. The drawings included grading plans, construction sequence plans, leachate management system plans, storm water management plans, and details. Prepared the contract documents and technical specifications for use by contractors in preparing bids. Participated in the bid procurement, bid review, and contractor selection for construction of the perimeter berm. Performed QA review, and served as the "Engineer of Record" for the berm design.

Hazardous Waste Landfill Remediation, Laufen International, Inc., East Sparta, Ohio

As part of a RCRA Corrective Action through a Consent Decree with the U.S. EPA Region 5, prepared an Interim Measures Work Plan for the remediation of a hazardous waste landfill at a facility in eastern Ohio. The Interim Measures included landfill cap enhancements, leachate management system modifications, construction of a flood protection levee, modification of the perimeter surface drainage system, and modification of the settlement monitoring program. Managed and prepared the contract documents, technical specifications, and drawings to procure a geosynthetics installer for the synthetic components of the new final cover system. Managed the implementation and CQA for the construction of the Interim Measures including construction of a new final cover system to encapsulate the existing landfill and the geotechnical program and construction of the flood protection levee. Prepared the construction certification report for submittal to the U.S. EPA following completion of the remediation activities.

Design, Permitting, and Construction of a Solid Waste Transfer Station, Rumpke Waste, Inc., Ironton, Ohio

Managed the design, permitting, and construction of a solid waste transfer station for a major solid waste company in southeast Ohio. The facility permit was through the Ohio EPA Southeast District Office in accordance with the Ohio Administrative Code rules and regulations pertaining to transfer stations. Coordinated and managed the transfer facility design by assembling a team of design professionals including site work, geotechnical and structural, environmental management systems, architectural, and mechanical, electrical, and plumbing including both wet and dry fire suppression systems. Prepared and obtained the required building permits through the Ohio Department of Commerce, Bureau of Building Code Compliance office. Managed the preparation of the contract documents, technical specifications, and construction drawings including QA/QC of the final bid documents and was responsible for the bid procurement including pre-bid meeting, bid evaluation, recommendation, and contract award. Performed limited CQA during the facility construction including project progress meetings, contractor requests for information, pay application review and approval, and change order requests.

Design and Permitting for a Type I Restricted Waste Landfill, Mittal Steel USA, Burns Harbor, Indiana

Managed the design and permit preparation for a Type I Restricted Waste Landfill for disposal of secondary wastewater treatment plant sludge at a major steel manufacturing facility in Indiana. Performed the leachate management system evaluation including landfill floor configuration, HELP Model to determine leachate volumes, and design calculations for pipe sizes, perforation openings, sumps, and pumps. Assisted with the preparation of the Special Exception to the Zoning Application required for the facility.

C&DD Landfill Closure Certification, Stambaugh Properties Ravenna, Ohio

Managed the closure and closure certification of a C&DD landfill in Ravenna, Ohio. Performed field oversight services including soil sample collection for geotechnical analysis. Prepared the Closure Certification Report and served as the Engineer-of-Record. Submitted the Closure Certification Report to the Portage County Health Department.

Hazardous Waste Facility Post – Closure Plan, ESAB Welding & Cutting Ashtabula, Ohio

Prepared and submitted to the Ohio EPA a hazardous waste facility post-closure plan for former lime ponds and associated impoundments at a welding wire manufacturer in Northeast Ohio. Post-closure plan included discussions on site security, inspection plan, monitoring plan, maintenance plan, and financial assurance.

Design and Permitting of a Solid Waste Transfer Station, Waste Management, Inc., Wooster, Ohio

Managed the design and permitting of a solid waste transfer station for a major solid waste company in central Ohio. The design included grading and storm water control plans, vehicle sequencing and staging plans, and detailed design of the transfer building structure and operating pad.

Design and Permitting for the Vertical Expansion of a Sanitary Landfill, Mid-American Waste Systems, Gary, Indiana

Managed the design and permitting for the vertical expansion of an existing sanitary landfill. Project included the design of leachate management, gas management, grading, closure and post-closure, and erosion and sediment control plans. Coordinated site remediation activities, including a toe drain collection and conveyance system and a groundwater cut-off slurry wall.

Design and Permitting for the Upgrade and Compliance of a Large Sanitary Landfill, City of Virginia Beach, Virginia

Managed the design and permitting for upgrade and compliance of a large existing sanitary landfill located in the Tidewater region of Virginia with new Subtitle D regulations. The design included plans for grading, leachate collection system and groundwater underdrain, closure and post-closure, and storm water management. Wetlands associated with expansion were permitted through the US Army Corps of Engineers Nationwide 26 Permit process.

Design and Closure of an On-Site Waste Disposal Site at an Aluminum-Processing Facility, Alcoa Cleveland Works, Cleveland, Ohio

Managed the design and closure of an on-site waste disposal site at an aluminum processing facility. Closure plan included grading, storm water management, gas management, post-closure care, and land-use plans.

Design and Permitting for Closure of Three Disposal Units at a Coke Facility, Wheeling-Pittsburgh Steel, Follansbee, West Virginia

Managed the design and permitting for the closure of three disposal units located at a coke facility along the Ohio River. Closure plans included grading, storm water management, gas management, and post-closure care and land use plans. Designed the closure plans and prepared permit applications as "fast track" projects in order to meet imposed regulatory deadlines.

Closure of a Hazardous Ash Disposal Impoundment at a Paint Pigment Facility, Cytec Industries, Inc., Washington, West Virginia

Managed the closure of a hazardous ash disposal impoundment at a paint pigment facility located along the Ohio River in West Virginia. The closure included final grading plan; final cover system configuration, including geogrids to allow construction equipment access to the ash material during the construction phase; and surface water management.

Design and Preparation of Permit Application Drawings for the Vertical Expansion of a Landfill, City of Barnstable, Massachusetts

Managed the design and preparation of permit application drawings for the vertical expansion of an existing landfill in Massachusetts. The project included the design of grading plans, disposal cell phase and sequence plans, storm water management, leachate collection and treatment systems, landfill gas management system, liner and fill cap system configurations, and closure and post-closure care plans. The existing site is located on Cape Cod within a Zone II Aquifer system, which required specialized engineering designs to ensure zone environmental protection of the groundwater systems at the site.

Preparation of a Waste Alternatives Study for a Large Paper Mill Facility, WESTVACO, Luke, Maryland

Managed the preparation of a Waste Alternatives Study for a large paper mill facility located in western Maryland. The study compared the development, design, permit preparation, and construction of two potential landfill sites: one located in West Virginia and the second located in Maryland. The study evaluated operations, design, permitting, material hauling to each site, and construction of each potential site for a study period of 20 years, with present worth analysis performed to determine capital required to finance the project. Each potential site was also compared to contract waste collection, transportation, and disposal by an independent waste contractor.

Design and Permitting for a Construction and Demolition Debris Landfill, Warren Recycling, Inc., Warren, Ohio

Managed the design and permitting for a C&DD landfill located in Warren, Ohio. The project included License Application forms, grading plans, leachate management plans, storm water management plans, and fill sequence plans. Applied for and received a variance from groundwater monitoring from the City Health Department.

Design and Permitting for a Construction and Demolition Debris Landfill, Iron Valley, Chesapeake, Lawrence County, Ohio

Managed the design and permitting for a C&DD landfill located in Lawrence County, Ohio. The project included License Application forms, grading plans, leachate management plans, storm water management plans, and fill sequence plans.

Design and Permitting of the Closure for a Residual Carbon Waste Disposal Facility, the Stackpole Corporation, St. Marys, Pennsylvania

Managed the design and permitting of the closure for a residual carbon waste disposal facility in Pennsylvania. Design included a combination RCRA-style final cover system and standard State of Pennsylvania cover system.

CERCLA, RCRA, and Remediation

Bid Documents, Technical Specifications and Construction Drawings for a Hydraulic Barrier Wall and Groundwater Extraction and Treatment System for a Site in Holland, Michigan

Prepared the bid documents, technical specifications, and construction drawings for the installation of a hydraulic barrier wall and groundwater extraction and treatment system at a former manufacturing site. The hydraulic barrier wall consists of a soil-bentonite (SB) slurry wall and blast furnace slag- cement-bentonite (BFSCB) slurry wall. Groundwater extraction and treatment system consists of five extraction wells, water filtration treatment, and deep well injection under high pressure. Bid documents and technical specification were prepared to following the CSI 2004 format. Participated in pre-bid meetings, bid evaluation, and contractor recommendation and contract award. Served as the Engineer-of Record for the design and assisted with the field CQA program including contractor oversight, project progress meetings, and contractor requests for information.

Preparation of RD/RA for Former Tar and Chemical Facility, Reilly Industries, Inc., Dover, Ohio

Managed the preparation of the RD/RA for a former tar and chemical facility located in Dover, Ohio. The remedial design included excavation of on-site soils and sediments contaminated with polycyclic aromatic hydrocarbons (PAHs), and benzene, toluene, ethylbenzene, and xylene (BTEX) for either off-site treatment by thermal destruction and disposal or placement within an on-site building foundation closed by the construction of an Ohio EPA- compliant solid waste final cover system; construction of a groundwater recovery trench with recovered groundwater discharged to the local publically owned treatment works (POTW); and placement of soil cover.

Hydrogeologic Site Investigation and Preparation of a Focused FS for a Lagoon at a Major Coke-Producing Facility, US Steel, Clairton, Pennsylvania

Managed the performance of a hydrogeologic site investigation and preparation of a "focused" FS for a lagoon contaminated with polynuclear aromatic hydrocarbons, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) at a major coke- producing facility. Performed the FS to adhere to the requirements of the Pennsylvania Department of Environmental Protection (PADEP). Alternatives evaluated included augmenting the existing groundwater pump and treat with lagoon sediment solidification/stabilization and construction of a PADEP-compliant final cover system.

Site Investigation, Permitting, Remedial Design, and Remediation Implementation at a Creosote Wood Treating Facility, Southern Wood Piedmont, Benson, North Carolina

Managed the site investigation, permitting, remedial design, and remediation implementation at a creosote wood treating facility in North Carolina. Surface impoundments used for disposal of creosote and surface water were remediated by stabilization/solidification of the resulting sludge and covering with a solid-waste-style final cover system.

Preparation of a Feasibility Study for a Large Primary Aluminum Facility, Ormet, Hannibal, Ohio

Managed the preparation of a FS for a large primary aluminum facility located along the Ohio River in the State of Ohio. Five impoundments, a former potash disposal area, a former spent carbon disposal area, a former construction material and demolition debris area, and the backwash area required remediation for fluoride, cyanide, and VOCs. The final proposed remedy included construction of RCRA-style final cover systems; soil washing/soil flushing aided by a Ranney well, which influenced the flow of groundwater; and river sediment dredging.

Preparation of a "Focused" Corrective Measures Study for a Hazardous Measures Recycling Facility, Safety-Kleen, Hebron, Ohio

Managed the preparation of a "focused" CMS for a hazardous materials recycling facility in the State of Ohio. Implemented interim corrective measures including groundwater recovery wells and low-profile air stripper with a groundwater cut-off wall. The CMS evaluated alternatives for remediating VOCs that had entered the soils and groundwater as a result of a fire at the facility.

Design of an Ultraviolet Peroxidation Groundwater Treatment System, Honeywell, Annapolis, Maryland

Managed the design of an ultraviolet (UV) peroxidation groundwater treatment system. The design included the UV system and associated groundwater recovery system for the remediation of VOCs, and SVOCs. Prepared contract documents, technical specifications, and construction drawings for use in the contractor bid procurement process.

Paint Sludge and Sediment Remediation in Lake Michigan, Flanders Industries, Inc., Menominee, Michigan

Managed the design and preparation of contract documents, technical specifications, and construction drawings for paint sludge and sediment remediation in Lake Michigan. Project included the design and construction of an impermeable dike built in Lake Michigan to isolate the contaminated sediments, sediment removal plans, sediment staging and sequencing plans, sediment testing plans, and site restoration plans.

Design and Construction of a Recovery and Treatment System at a Carbon Graphitizing Facility, The Stackpole Corporation, St. Marys, Pennsylvania

Provided QA/QC and senior oversight for the design and construction of a recovery and treatment system at a carbon graphitizing facility in Pennsylvania. The system included 14 groundwater recovery wells and soil vapor extraction for chlorinated organics.

General Engineering

Implementation of Design/Build Services for Building Demolition, TRW, Inc., Cleveland, Ohio

Lead engineer responsible for providing direction and oversight to the onsite CQA inspector throughout the performance of the building demolition for a former automobile parts manufacturing facility. Site activities included asbestos abatement, multi-story building complex demolition consisting of steel and wood frame, concrete, block and brick buildings including removal, cleaning, and off-site disposal of tanks and pipelines containing residual materials, removal, cleaning, and off-site disposal of PCB-containing transformers, and segregation and recycling of steel, concrete, and brick materials. Provided interpretation of project specifications and conducted bi-monthly project progress meetings.

Design, Technical Specifications and Construction Drawings for Filter Press installation, Whirlpool Corporation, Marion, Ohio

Project manager for the design and preparation of technical specifications and construction drawings for the installation of a filter press in an existing water treatment building. Prepared the civil component of the specifications and drawings and managed the preparation of the structural, mechanical, electric, and plumbing (MEP) components of the project. Installed the filter press in the existing filter press building by retrofitting the inside of the building and the existing structural components and MEP. Installation of the filter press allowed the client to realize a two-fold increase in filtering the effluent from the onsite wastewater treatment plant (WWTP).

Technical Specifications and Construction Drawings for Building Demolition, City of Dayton, Office of Economic Development, Dayton, Ohio

Prepared the contract documents, bidding documents, technical specifications, and construction drawings for the demolition of a 845,000 square foot, multi-story building complex consisting of steel frame, concrete, block and brick buildings including removal and off-site disposal of tanks and pipelines containing residual materials. Contract and bidding documents were prepared to adhere to client's (municipal) preferred formats. Participated in pre-bid and pre-demolition meetings, bid evaluation, and contractor recommendation and contract award. Managed the CQA program including contractor oversight, project progress meetings, and contractor requests for information.

Technical Specifications and Construction Drawings for Building Demolition, Columbus Recreation and Parks, Columbus, Ohio

Prepared the contract documents, bidding documents, technical specifications, and construction drawings for the demolition of a 25,500 square foot, three-story, steel frame, concrete, block and brick building including removal and off-site disposal of an underground storage tank (UST). Contract and bidding documents were prepared to adhere to client's (municipal) preferred formats. Participated in pre-bid and pre-demolition meetings, bid evaluation, and contractor recommendation and contract award. Project included field survey and verification of existing utilities associated with the building and preparation of a site grading plan following removal of the building debris from the site.

Cleaning, Asbestos Abatement, and Demolition of Aboveground Storage Tanks, Buildings, Process Equipment, and Pipelines at a Large Coal Tar Refining Facility, Reilly Industries, Inc., Cleveland, Ohio

Managed the cleaning, asbestos abatement, and demolition of aboveground storage tanks (500 to 1,000,000 gallons) and pipelines and demolition of facility buildings and process equipment at a large coal tar refining facility under the Ohio EPA Cessation of Regulated Operations (CRO) Program. Products produced at the site included coal tar and coal tar distillates, creosote, naphthalene, and oils. Directly prepared technical specifications and construction drawings for use in bid procurement, conducted pre-bid and pre-demolition meetings, bid review and evaluation and assisted client with contract award. Managed the field oversight services throughout performance of the field activities.

Site Assessments and Investigations

Preparation of Phase I Environmental Site Assessment, City of Steubenville, City Engineer, Steubenville, Ohio

Project Manager. Performed the Phase I Environmental Site Assessment (ESA) in accordance with ASTM E1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The Phase I ESA included environmental database searches, interviews with past property owners, limited title searches, site reconnaissance, agency information reviews, and report preparation.

Preliminary Phase II Site Screening, Whittier Peninsula Properties, Columbus Recreation and Parks, Columbus, Ohio

Project Manager. The purpose of the site screening was to review historical information and data related to environmental issues and concerns associated with the Peninsula properties, develop a site ranking system, and develop preliminary recommendations and costs for performing Phase II site investigation activities to identify potential impacts to the soils and groundwater at the Whittier Peninsula.

Phase II Environmental Site Investigation, Whittier Peninsula Properties, Columbus Recreation and Parks, Columbus, Ohio

Project Manager. The Phase II ESI included field work, laboratory analysis, and reporting writing in accordance with the Ohio EPA Voluntary Action Program (VAP) rules and regulations. Field work included collection of soil samples using the Geoprobe® Direct-Push Technology and installation and sampling of groundwater monitoring wells. Prepared the report narrative text, tables, and drawings.

Preparation of Phase I Environmental Site Assessment, City of Columbus, Street Design Department, Columbus, Ohio

Managed and provided QA/QC for a Phase I ESA of Short Street in Columbus, Ohio. Performed the Phase I ESA for the City of Columbus Street Design Department as part of the street-widening program. Used ASTM E1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process in the performance and preparation of the Phase I ESA report.

Preparation of Phase II Environmental Site Investigation, City of Columbus, Street Design Department, Columbus, Ohio

Managed and provided QA/QC for a site investigation performed at Reynolds Avenue in the City of Columbus, Ohio. Performed work for the City of Columbus Street Design Department as part of the street-widening program. The site investigation included the performance of Geoprobe holes to collect soil samples for laboratory analysis prior to initiation of construction activities. Prepared a Phase II Environmental Site Investigation Report presenting the results of the investigation and conclusions that no subsurface contamination was present within the construction limits.

Preparation of Phase II Environmental Site Investigation, City of Columbus, Street Design Department, Columbus, Ohio

Managed and provided QA/QC for a site investigation at an intersection along Hudson Street in the City of Columbus, Ohio. The intersection was being modified to include turning lanes and Geoprobe holes were performed to collect subsurface soil samples. Performed work for the City of Columbus Street Design Department as part of the street-widening program.

Phase II Environmental Site Investigation and Remediation, City of Columbus, Street Design Department, Columbus, Ohio

Managed and performed QA/QC for a site investigation and remediation of a former dry-ice manufacturing facility along McKinley Avenue in Columbus, Ohio. The City of Columbus Street Design Department was widening McKinley Avenue. Used Geoprobe technology to collect subsurface soil samples for purposes of determining the presence of contamination within the construction limits. A former dry ice manufacturing facility, located along the revised road centerline, required remediation of an existing concrete vault prior to demolition to allow construction to proceed. Cleaned the vault by power washing and vacuuming with off-site disposal of the resulting sludge and rinsate waters.

Compliance

Spill Prevention, Control, and Countermeasure Plan, The Ohio State University, Columbus, Ohio

Performed the “five-year” review and evaluation of existing Spill Prevention, Control, and Countermeasure (SPCC) Plans for re-certification in accordance with the requirements of 40 CFR 112 as amended in December 2006 for The Ohio State University (OSU) in Columbus, Ohio. Reviewed, revised, and

re-certified the Master SPCC Plan for the OSU main campus. Reviewed facility specific SPCC Plans, performed facility inspections, and revised the SPCC Plans using the "poster-format" with cross-references and supporting documents for four facilities within the OSU main campus: Center for Automotive Research, McCracken Power Plant, Transportation and Parking Services, and the Scarlet and Gray Golf Course. Also reviewed the SPCC Plan for the Wooster Campus of OSU in Wooster, Ohio, performed a site inspection, and prepared and certified the "poster-format" with cross-references and supporting documents.

Integrated Contingency Plan (ICP), The Ohio State University, Don Scott Field, Columbus, Ohio
Prepared an ICP for The Ohio State University Airport, Don Scott Field. Combined the existing Storm Water Pollution Prevention Plan (SWP3) and the existing SPCC Plan into one document that also included a new emergency response plan for the airport. The ICP addressed the onsite Avgas and Jet A aviation fuel storage facility, mobile aircraft refuelers, and two maintenance facilities resident on the airport property. Prepared the ICP in accordance with the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) that is a nationally recognized system that provides a commonly understood framework that allows for effective interaction among response personnel, thus facilitating its ease of use during an emergency situation.

Spill Prevention, Control, and Countermeasure Plan, Denison Hydraulics, Marysville, Ohio
Prepared SPCC Plan to bring the Denison Hydraulics facility in compliance with the requirements of 40 CFR 112 for a specialty hydraulic equipment manufacturing facility in Marysville, Ohio. Prepared the SPCC Plan text, drawings, and appendices based on review of historic records, conversations with facility personnel, and site inspections. Served as the "Engineer-of-Record" for certification of the SPCC Plan.

Spill Prevention, Control, and Countermeasure Plan, Koneta Rubber, Wapakoneta, Ohio
Prepared SPCC Plans to bring two facilities in compliance with the requirements of 40 CFR 112 for a specialty rubber manufacturing facility in Wapakoneta, Ohio. Prepared the SPCC Plan text, drawings, and appendices based on review of historic records, conversations with facility personnel, and site inspections. Served as the "Engineer-of-Record" for certification of the SPCC Plans.

Notice of Intent and Storm Water Pollution Prevention Plan, United Precast, Mount Vernon, Ohio
Prepared and submitted the Notice of Intent (NOI) for a concrete manufacturing facility in central Ohio to provide coverage of the facility under the General Permit Authorization to discharge Storm Water Associated with Industrial Activity (General Permit No. OHR000003) Under the National Pollutant Discharge Elimination System (NPDES) as administered by the Ohio EPA. As a condition of the General Permit, prepared the SWP3 for the facility including a site walk over, material inventory, preliminary development of "Best Management Practices (BMPs)", certification of non-storm water discharges, and recommendations for implementing BMPs to minimize contact with storm water.

Spill Prevention, Control, and Countermeasure Plan, Campbell Soup Company, Napoleon, Ohio
Reviewed and revised existing SPCC Plan for re-certification in accordance with the requirements of 40 CFR 112 for a food manufacturing facility in Napoleon, Ohio. Prepared revisions to the SPCC Plan based on the site inspection and updated the existing plan to adhere to the revised SPCC Plan Rules and Regulations effective as of August 16, 2002.

Spill Prevention, Control, and Countermeasure Plan, Lumi-Lite Candle Factory, Norwich, Ohio
Reviewed and revised existing SPCC Plan for re-certification in accordance with the requirements of 40 CFR 112 for a candle manufacturing facility in Norwich, Ohio. Prepared revisions to the SPCC Plan based on the site inspection and updated the existing plan to adhere to the revised SPCC Plan Rules and Regulations effective as of August 16, 2002.

Spill Prevention, Control, and Countermeasure Plan, Confidential Client, Bucyrus, Ohio

Reviewed and revised existing SPCC Plan for re-certification in accordance with the requirements of 40 CFR 112 for a rubber and plastic hose manufacturing facility in Bucyrus, Ohio. Prepared revisions to the SPCC Plan based on the site inspection and updated the existing plan to adhere to the revised SPCC Plan Rules and Regulations effective as of August 16, 2002.

Conditional No Exposure Exclusion for Industrial Activity, Delphi Automotive Systems, Warren, Ohio

Performed site inspections and developed inspection forms for five automotive parts manufacturing facilities to determine compliance with the NPDES, Storm Water Phase II Final Rule – Conditional No Exposure Exclusion for Industrial Activity as administered by the Ohio EPA. Used the initial facility inspections to develop forms that the client could use to perform subsequent annual compliance inspections. Provided a summary of issues to be addressed prior to submitting Conditional No Exposure Exclusion requests to the Ohio EPA.

Spill Prevention, Control, and Countermeasures Plan Re-Certification, Delphi Automotive Systems, Warren, Ohio

Perform review, prepared revisions, and re-certified SPCC Plans in accordance with the requirements of 40 CFR 112 for a major automotive parts manufacturer in Northeast Ohio. Performed site inspections for two facilities, updated the SPCC Plans, and signed as the “Engineer of Record”.

Storm Water Pollution Prevention Plans, Delphi Automotive Systems, Warren, Ohio

Performed site inspections, review of existing plans, and prepared required revisions of SWP3s for a major automotive parts manufacturer in Northeast Ohio. Reviewed and revised the SWP3s in accordance with the facilities General Permit Authorization to Discharge Storm Water Associated with Industrial Activity under the NPDES.

Aboveground Tank Compatibility Certification, Yenkin-Majestic Paint Corporation, Columbus, Ohio

Certified the compatibility of an aboveground storage tank (AST) for use in storing waste solvents in accordance with Ohio Administrative Code (OAC) Rules and Regulations, Chapter 3745-66-92. Certification included inspection of the AST including overflow and automatic shut-off controls, preparation of the certification report and submittal to the Ohio EPA.

Storm Water/Surface Water Management

Design and Implementation of a “Class A” Trout Stream, Cerro Metal Products, Company, Bellefonte, Pennsylvania

Managed the design and implementation of a “Class A” trout stream in central Pennsylvania. Lead, copper, zinc, and PCBs contaminated the stream banks and sediment. Modeled 20+ square mile drainage area utilizing SEDCAD 4 software for the design of riprap/gabion baskets to stabilize the stream banks, following excavation and off-site removal of the contaminated soils and sediments. Prepared contract documents, technical specifications, and construction drawings. Completed the project on a “fast track” schedule due to strict regulatory deadlines.

Evaluation of Sedimentation Basin at a Sanitary Landfill, Private Landfill in Minnesota

Prepared the evaluation of an existing sedimentation basin at a sanitary landfill utilizing SEDCAD+ computer software. Modeled the watershed for the basin and added 1000 GPM of inflow from a groundwater recovery/treatment system. Treated the basin as an infiltration structure, which saved the client \$200,000 by not having to construct a second basin to handle water from the groundwater recovery/treatment system.

Abandoned Mine Lands and Mining

Acid Mine Drainage, Investigation and Remedial Design, Meigs County, Ohio, Ohio Department of Natural Resources, Columbus, Ohio

Managed the investigation and remedial design for acid mine drainage (AMD) from old underground mine openings in Meigs County, Ohio. Basements of houses located within 30- to 50-feet of the toe of the slope

were flooding during rainfall events due to saturation of the soils caused by AMD from the mine openings. Resealed the openings and employed an underdrain system to drain the back yards of the houses and former mine openings. Designed the underdrain system and constructed taking into account the proximity of the toe of the slope and the need to protect the integrity of the slope by preventing slope failure. Technical specifications and drawings were prepared in accordance with the Ohio Department of Natural Resources (ODNR) protocols.

Reclamation and Surface Erosion Remediation, Gallia County, Ohio, Ohio Department of Natural Resources, Columbus, Ohio

Managed the reclamation and surface erosion remediation at an abandoned mine land site in Gallia County, Ohio. The reclamation design involved the regrading of the site, including highwall and slope reduction to minimize future potential surface erosion problems. Developed technical specifications, prepared in accordance with the ODNR protocols, grading plans, and surface water control plans, in a format suitable for contractors to perform the reclamation work.

Mine Reclamation and Surface Erosion Remediation, Gallia County, Ohio, Ohio Department of Natural Resources, Columbus, Ohio

Managed the reclamation and surface erosion remediation at an abandoned mine land site in Gallia County, Ohio. The reclamation design involved the regrading of the site, including highwall and slope reduction to minimize future potential surface erosion problems. The grading plans were required to incorporate access to an active natural gas well located on the site. Developed topsoil borrow area plans (from adjacent undisturbed properties), including sampling plans, volume estimates, grading plans, and surface water control plans. Developed technical specifications, prepared in accordance with the ODNR protocols, grading plans, and surface water control plans, in a format suitable for contractors to perform the reclamation work.

Reclamation Design for Control of Acid Mine Drainage, Peabody Coal Company, St. Louis, Missouri
Prepared the reclamation design for control of AMD from an old abandoned auger mining pit in Missouri. AMD from the auger pit was flowing into the Clairton River and causing discoloration problems. The reclamation design included the construction of a sedimentation basin at the mouth of the valley leading from the old auger pit and prior to entering the river. Sedimentation basin outfall was a corrugated pipe down the slope to the river to minimize potential surface erosion attributed to the outfall.

Mine Plans and Reclamation Plans for Two Large Coal Mines, Powder River Coal Company, Bill, Wyoming

Prepared mine plans and reclamation plans for two large coal mines in Wyoming (6,000,000 tons/year and 8,000,000 tons/year). Plans included sequencing of strip pits, overburden handling, backfill, and grading plans. Storm water management included design of sedimentation basins, diversion ditches, containment berms, and ditches.

Permit Revisions to an Existing Mine Plan, Powder River Coal Company, Bill, Wyoming

Managed the preparation of permit revisions to an existing mine plan to include the construction of a concentric loop track, silo, slot storage, and conveyor system for increased coal handling, storage, and loading capacity. Following approval of the permit revision, managed the preparation of technical specifications and construction drawings for the required facility upgrades, the bidding and contractor procurement activities, and construction oversight activities throughout the construction of the project.

Underdrain System to Control Groundwater Flow at a Mine in the Rocky Mountains, Peabody Coal Company, Denver, Colorado

Designed an underdrain system to control groundwater flow beneath backfilled overburden at a mine in the Rocky Mountains. The underdrain allowed mining of the coal seam from the bottom of the mountain to the top, instead of contour mining, which increased the amount of recoverable coal. Used the slope stability

program REAME developed by the University of Kentucky to aid in the design and backfill placement of underdrain materials and overburden to create a stable backfill as part of the reclamation.

Major Channel Relocation/Remediation, Powder River Coal Company, Bill, Wyoming

Participated in the design, material handling, stockpiling, and backfilling of a major channel relocation/remediation. During the early stages of opening a new mine, relocated a major creek to allow for maximum recovery of the coal seam. As the creek was being stripped, selectively handled and stockpiled the material comprising the creek, i.e., sands, gravels, etc., for reconstruction during the reclamation process for this area. Following coal removal, reconstructed the stream in its former location, with each lithologic unit replaced to recreate the stream before mining events took place.

Publications

"Construction and Demolition Debris Rules in Ohio," Concrete Connection, Ohio Ready Mixed Concrete Association (ORMCA), November 1998

"Simplifying Environmental Planning Requirements," FOUNDRY Management & Technology, pp. 20-23, April 1999.

Janet Todia

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Experience Summary

Janet Todia recently joined Brown and Caldwell. Ms. Todia brings 15 years of experience in landfill operation and maintenance.

Assignment

Project Manager

Experience

15 years

Joined Firm

2010

Relevant Expertise

- Solid Waste Management
- Landfill Gas Systems
- Air Compliance
- Gas Control and Collection System CQA
- Monthly EPA Reports for active dross site landfills

Monthly Operating Reports for Landfill Dross Reaction Sites, Republic Services, Inc., Multiple Sites

Janet assembles monthly reports on behalf of Republic Services for presentation to the State and Federal EPA on dross reaction chemistry and progress. She does this for the following landfills:

- Middle Point Landfill, Murfreesboro, TN
- Countywide RDF East Sparta, OH
- Bridgeton Landfill, Bridgeton, MO

Leachate Compliance Sampling, Lorain I Landfill, Republic Services, Inc., Lorain, Ohio

Janet performs leachate sampling according the monthly Waste Water Treatment Plant system requirements per Direct Discharge Permit

Lorain II Landfill, Republic Services, Inc., Lorain, Ohio

CQA. Janet performs CQA functions for Gas Collection and Control System

Countywide Landfill, Republic Services, Inc., East Sparta, OH

CQA. Perform CQA functions for Gas Collection and Control System

Landfill Operation and Maintenance

Cuyahoga Regional Sanitary Landfill, Nestle USA, Solon, Ohio

Project Manager. Janet served as the project manager for landfill gas services to supply a 3.8 megawatt power plant on site and a 72 mmbtu boiler system to Nestle USA. She managed the coordination of field operations with pipeline and compression skid construction activities for the startup of the Nestle Gas-to-Energy Project.

Epperson Waste Disposal, Republic Services, Inc., Williamstown, Kentucky

Supervisor. Janet supervised the well field technicians. She aided in the installation of pneumatic pumps for well dewatering purposes and was responsible for environmental compliance reporting.

Hazel Road Landfill, Waste Management, Akron, Ohio

Project Manager. Janet served as the project manager for landfill gas field services. She assisted field technicians in trouble shooting potential landfill gas migration issues and pneumatic pump installation.

Hoffman Road Landfill, City of Toledo, Toledo, Ohio

Project Manager. Ms. Todia served as the project manager for landfill gas field services. She managed environmental compliance and reporting and assisted site technicians in small-scale construction repairs, installation of pneumatic pumps, potential site migration issues, and routine well field tuning. She was responsible for routine and non-routine construction budgets.

Lake County RDF, Waste Management, Chesterland, Ohio

Project Manager for landfill gas field services. Ms. Todia managed small-scale construction repairs, submitted proposals for small-scale construction projects, and coordinated well field compliance with Environmental Specialists, Inc.

Oakland Heights Development, Allied Waste Industries, Inc., Auburn Hills, Michigan

Project Manager. Janet served as the project manager for a landfill gas project that provides methane to the GM Lake Orion boiler system. She managed budget and non-routine activities and worked with Air Quality Specialists, Inc. to maintain environmental compliance.

Pine Tree Acres Landfill, Inc., Waste Management, Lenox Township, Michigan

Project Manager. Janet served as the project manager for well field technicians and aided in routine well field tuning to increase flow to the gas energy plant on site. She worked with Air Quality Specialists, Inc. to maintain environmental compliance.

Statewide Landfill, Waste Management, Canton, Ohio

Project Manager. Janet served as the project manager for well field technicians and aided in routine well field tuning, installation of pneumatic pumps, small scale construction repairs, and troubleshooting potential landfill gas migration issues.

Valley View Landfill, Republic Services, Sulpher, Kentucky

Supervisor. Janet supervised well field technicians and managed routine and non-routine budgets. She was responsible for environmental compliance reporting.

Landfill Air Compliance Reporting

Deercroft Recycling and Disposal Facility, Waste Management, Michigan City, Indiana

Project Manager. Ms. Todia prepared semiannual Title V reports, semiannual new source performance standards (NSPS) reports, and semiannual startup, shutdown, and malfunction (SSM) reports. She submitted variance requests/alternative timeline requests, Title V annual compliance certification, and well decommissioning requests and Deviation Occurrence Reports.

Douglas County Recycling and Disposal Facility, Waste Management, Bennington, Nebraska

Project Manager. Janet prepared semiannual Title V reports, semiannual NSPS reports, semiannual SSM reports, and Title V annual compliance certifications.

ELDA Recycling and Disposal Facility, Waste Management, Cincinnati, Ohio

Project Manager. Ms. Todia prepared quarterly/semiannual Title V reports, semiannual EG reports, and semiannual SSM reports. She submitted variance requests/alternative timeline requests and well decommissioning requests.

Epperson Waste Disposal, Republic Services, Williamstown, Kentucky

Project Manager. Janet prepared semiannual NSPS reports and semiannual SSM reports. She submitted alternative variance requests/alternative timeline requests and well decommissioning requests.

Greene Valley Recycling and Disposal Facility, Waste Management, Naperville, Illinois

Project Manager. Janet prepared semiannual EG reports, semiannual SSM reports, semiannual Clean Air Act Permit Program (CAAPP) reports, and annual CAAPP compliance certifications. She submitted CAAPP Form 405s on an as needed basis.

Hardy Road Sanitary Landfill, Waste Management, Akron, Ohio

Project Manager. Ms. Todia prepared semiannual NSPS reports, semiannual SSM reports, quarterly/semiannual Title V reports, annual Title V compliance certifications, and annual solid waste report. She maintained operating records.

Hoffman Road Landfill, City of Toledo, Toledo, Ohio

Project Manager. Janet prepared semiannual NSPS reports, semiannual SSM reports, and quarterly/semiannual Title V reports.

Lake County RDF, Waste Management, Chesterland, Ohio

Project Manager. Ms. Todia prepared semiannual EG reports, semiannual SSM reports, quarterly/semiannual Title V reports, annual Title V compliance certifications, and annual solid waste report.

Lake Landfill, Waste Management, Northbrook, Illinois

Project Manager. Janet prepared semiannual EG reports, semiannual SSM reports, semiannual CAAPP reports, and annual CAAPP compliance certifications. She submitted CAAPP Form 405s on an as need basis.

Metro Park East Landfill, Waste Management, Mitchellville, Iowa

Project Manager. Janet prepared semiannual NSPS reports, semiannual SSM reports, semiannual Title V reports, and annual Title V compliance certifications.

Valley View Landfill, Republic Services, Sulpher, Kentucky

Project Manager. Ms. Todia prepared semiannual NSPS reports, semiannual SSM reports, semiannual Title V reports, and annual compliance certifications. She submitted variance requests/alternative timeline requests, and well decommissioning requests.

Wheeler Recycling and Disposal Facility, Waste Management, Wheeler, Indiana

Project Manager. Janet prepared semiannual EG reports, semiannual SSM reports, quarterly/semiannual Part 70 compliance certifications, and annual Part 70 compliance certifications. She submitted variance requests/alternative timeline requests, well decommissioning requests, and Deviation Occurrence Reports.

Woodland Recycling and Disposal Facility, Waste Management, South Elgin, Illinois

Project Manager. Janet prepared semiannual EG reports, semiannual SSM reports, semiannual Title V reports, and annual compliance certifications. She submitted variance requests/alternative timeline requests, and well decommissioning requests.

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Amanda M. Gullett

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Experience Summary

Amanda Gullett has six years experience. She has participated in the practice of technical writing and editing, ArcGIS mapping, data management, and technical field support, including construction quality assurance (CQA). Her responsibilities include quality assurance monitoring during the installation of geosynthetic and clay liners at water reservoir sites to fulfill and document compliance with project requirements including destructive testing for trial welds and field seams, panel placement logs, and documentation of air test and vacuum tests. She also supports reporting efforts including preparation of reports and data analysis.

Assignment

CQA Field Monitor

Education

A.A., Ohio State University, 2005

*B.S., Mathematics, Ohio
Dominican University, 2012*

Training

*HAZWOPER, 40-Hour trained per
29 CFR 1910.120*

C4 HAZWOPER Supervisor Training

CPR/First Aid

AED Training

*Bloodborne Pathogens Exposure
Control*

Experience

6 years

Joined Firm

2006

Relevant Expertise

- *Technical Writing and Editing*
- *Data Management*
- *Construction Quality Assurance (CQA) Oversight*
- *Installation and Quality Assurance/Quality Control*

Software

- *Microsoft Word*
- *Microsoft Excel*
- *Microsoft Publisher*
- *Microsoft PowerPoint*
- *ArcGIS*

Project Experience

Capacity, Management, Operations and Maintenance (CMOM) Program, Division of Sewerage and Drainage, City of Columbus, Ohio Technical Assistance. Designed, edited, authored and produced monthly progress reports, created and maintained graphs to chart performance measures and goals and updated financial tables. This purpose of this six-year multi-million dollar project is to develop a program to help city staff properly manage, operate and maintain the collection system to mitigate the impact of sanitary sewer overflows.

West Fifth Infiltration and Inflow (I/I) Study, City of Columbus, Ohio Technical and Field Support. Assisted in organizing the quick response team's mobilization documentation and, as a member of the quick response team, participated in fieldwork. The quick response team was responsible for monitoring conditions at the I/I study area during heavy rain events with the intent of communicating flooding, sewer surcharging and DSR activation events to the project modeling team.

Fremont Raw Water Reservoir CQA, City of Fremont, Fremont, Ohio CQA Field Monitor. Delivered quality control, observed and documented installation of 94 acres of geocomposite clay liner (GCL), 40-mil linear low-density polyethylene (LLDPE) geomembrane and geotextile for liner installation. Responsible for documenting all quantitative and qualitative testing of the geosynthetics including panel layouts, seam logs, air testing, destructive testing, repair logs and vacuum box testing. Assisted in compiling information for reporting efforts and report production.

Lorain County II Landfill, Lorain County, Oberlin, Ohio CQA Field Monitor. Provided CQA oversight for the installation of a landfill gas extraction system. This included HDPE pipe installation, extraction pipe fusion welding installation, pipe pressure testing and collection sump installation.

Additional Experience

- Using ArcGIS on site plans with survey data.
- Preparing quantity reports for proposed and designed projects.
- Assisting with the production of the semi-annual and annual reports prepared in support of OAC 3745-27-10(C)(10).
- Managing data for several landfills by retrieving well information, color coding ranges of explosive gases and leachate temperatures and reporting the results to the client in an easy to read spreadsheet.

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Bill Foster

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Experience Summary

Mr. Foster has experience dealing with project management, surveying, project scheduling, project cost estimating. As a design engineer, he has experience in landfill design, sewer design, grading, technical report preparation, landfill gas collection and control systems (GCCS), leachate management systems, and surface water management systems. As a field engineer, he has experience in providing quality assurance (QA) services for the construction and certification of municipal solid waste facilities, sanitary landfill facilities, and construction and demolition debris facilities. As a field technician, he has experience in observing and inspecting the installation of soils, aggregates, geosynthetics, geotextiles, structural fill berms, landfill gas

Assignment

CQA Field Monitor

Education

BS, Civil & Environmental Engineering,
The Ohio State University, 2001

Registration

Engineering Intern, (E.I.) Ohio

Surveying Intern, (S.I.) Ohio

Training

40-Hour OSHA Health & Safety Training

Troxler Nuclear Density Gauge Certified

OSHA Site Supervisor Training

CPR/First Aid

Experience

9 Years

Joined Firm

2009

Relevant Expertise

- Planning and Development
- Project and Site Management
- Project Cost Estimating and Budget Control
- Installation and Quality Assurance/Quality Control
- Repair and Maintenance
- Permitting
- Compliance
- Design

collection and control systems, leachate management systems, recompacted soil barriers (liner/leachate and cap systems), protective cover placement, drainage structures, and final cover placement.

Bill has been involved in many projects as a project engineer, a design engineer, a field engineer and a field technician. These projects include site selection, borrow study evaluation, wetlands delineation, cost analysis, design of leachate management systems, design of surface water management systems, design of Class I, II, and III water reservoirs, design of landfill gas collection and control systems, cap and liner stability analysis, air emission calculations, and access road development. Compost facilities and transfer station applications are also prepared under his direction.

Countywide Recycling & Disposal Facility 2009 Gas System CQA Services, East Sparta, Ohio

Provided engineering expertise and served as the construction quality assurance (CQA) lead for this project that included modifications to the existing GCCS. These modifications consisted of the installation of the following:

- Approximately 42,369 linear feet of high-density polyethylene (HDPE) pipe of various diameters.
- 18 new extraction wells
- 26 replacement extraction wells
- 7 condensate pump stations
- 2 force main tie-in vaults

CQA activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the Ohio Environmental Protection Agency (Ohio EPA).

Countywide Recycling & Disposal Facility Leachate Collection System Improvements CQA Services, East Sparta, Ohio
Provided engineering expertise and served as the CQA lead for this project that incorporated improvements to the leachate collection system. These improvements consisted of the installation of

the following:

- Approximately 2,174 linear feet of gravity drain piping.
- Approximately 13,930 linear feet of force main piping.
- Two lift stations.
- 6 manholes
- A 500,000-gallon above ground storage tank.

CQA activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the Ohio Environmental Protection Agency (Ohio EPA).

Countywide Recycling & Disposal Facility Leachate Collection System Improvements CQA Services, East Sparta, Ohio

Provided engineering expertise and served as the CQA lead for this project that incorporated improvements to the leachate collection system. These improvements consisted of the installation of the following:

- Approximately 6,689 linear feet of HDPE pipe of various diameters.
- 8 new extraction wells
- 2 condensate pump stations
- 1 force main tie-in vault
- 1 leachate sump
- Approximately 7.80 acres of Flexible Membrane Liner (FML)

CQA activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the United States Environmental Protection Agency (USEPA).

Countywide Recycling & Disposal Facility 2009 Temporary FML CQA Services, Stark County, Ohio

Provided engineering expertise and served as the CQA lead for this project which included the installation of approximately 22.4 acres of FML

CQA activities included documenting FML installation, field testing of FML, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, soils testing lab, geosynthetics testing lab, and the client. Prepared the construction certification report for submission and approval by the USEPA.

Lorain County II Landfill Gas System CQA Services, Oberlin, Ohio

Provided engineering expertise and served as the CQA lead for this project that included the following:

- Replacement of approximately 800 linear feet of existing 12-inch diameter SDR-17 HDPE header pipe along the north slope of the Landfill with new 12-inch diameter SDR-17 HDPE header pipe.
- Installation of new 6-inch diameter SDR-17 HDPE jumper lines for EW-47, EW-48, EW-56, and EW-62R2.
- Installation of new 4-inch diameter SDR-17 HDPE vacuum lines to three existing sideslope risers.

- Enhancements (new 48-inch diameter HDPE sump top and 4-inch diameter HDPE vacuum pipeline) to the northern sump of the southwest leachate sumps.
- Replacement of existing 2-inch diameter wellheads with new 3-inch diameter wellheads on five landfill gas extraction wells.
- **Wyandot County Landfill Gas System CQA Services Carey, Ohio**
- **Provided engineering expertise and served as the CQA lead for this project that included the installation of approximately 2,956 linear feet of HDPE pipe of various diameters to connect the re-drilled extraction wells, new flare station, condensate sump, and convert the two existing extraction wells for combination wellheads.**

CQA activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the Ohio EPA. activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the Ohio EPA.

Wyandot County Landfill Gas System CQA Services Carey, Ohio

Provided engineering expertise and served as the CQA lead for this project that included the installation of approximately 2,956 linear feet of HDPE pipe of various diameters to connect the re-drilled extraction wells, new flare station, condensate sump, and convert the two existing extraction wells for combination wellheads.

CQA activities included documenting GCCS installation, field testing of HDPE pipe, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an "as-built" construction certification report. Served as liaison between several parties including the contractor, surveyor, pipe manufacturer, and the client. Prepared the construction certification report for submission and approval by the Ohio EPA.

Design, Permitting, and Construction Quality Assurance of a Resource Conservation and Recovery Act (RCRA) Hazardous Waste Landfill, Eastern Ohio

Managed the permitting and design for the remediation of an existing RCRA hazardous waste landfill in eastern Ohio. Permitting included the preparation and subsequent approval of the Interim Measures Work Plan for submittal to the USEPA Region 5 as part of a Consent Decree. The landfill remedial design included replacement of leachate storage tanks, incorporation of a new final cover system to completely encompass the existing landfill footprint, construction of a flood protection levee, and remediation of the perimeter surface drainage system. Provided CQA for the construction of the new final cover system including geosynthetic components installation. Prepared the construction certification report for submission and approval by the USEPA.

Coshocton County Landfill, Coshocton, Ohio

Served as project engineer and CQA lead on a project that included excavation of cell, placement of engineered subgrade, structural fill, recompact soil liner, geosynthetic clay liner, 60 mil HDPE geomembrane, geotextile, HDPE pipe, and protective layer. QA activities included documenting liner installation, field sampling and testing, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress, and collecting data for an "as-built" construction certification report. The work was performed at an accelerated pace to meet the client's needs. To minimize and ease the regulatory review process, worked closely with the site owner and the Ohio EPA district engineers through the preparation of this alteration. Served as liaison between several parties including the contractor, surveyor, soils testing lab, geosynthetics testing lab, and client. Prepared construction certification report for submission to the Ohio EPA.

Gallia County Landfill, Gallia County, Ohio

Provided engineering expertise and served as the CQA lead for this project which included leachate management system (leachate collection and storage system, lift station, and force main), surface water management system (sedimentation basin, culverts, and channels), and a final cover system (recompacted soil barrier, intermediate cover, linear low-density polyethylene (LLDPE) geomembrane, geonet, geotextile and vegetative layer). CQA activities included documenting liner installation, field sampling and testing, coordination and review of laboratory testing, interpretation of specifications, documentation of all construction activities, documentation of the construction progress and collecting data for an “as-built” construction certification report. Served as liaison between several parties including the contractor, surveyor, soils testing lab, geosynthetics testing lab, and client. Prepared the construction certification report for submission and approval by the Ohio EPA. Also prepared the annual operational report for submission and approval by the Ohio EPA.

Franklin County Sanitary Landfill, Franklin County, Ohio

As Project Engineer, is involved in all contracts providing professional services at the Franklin County Landfill, either for the landfill operator or the Solid Waste Authority of Central Ohio (SWACO). Highly knowledgeable with the landfill and both the current landfill operations management and the SWACO landfill management personnel. Prepared the annual operational report for submission and approval by the Ohio EPA. Developed an excellent working relationship with the Ohio EPA Central District engineers and general staff having regulatory jurisdiction over the site.

H. Hafner & Sons, Inc., Construction and Demolition Debris Facility, Cincinnati, Ohio

Project included excavation of cell, placement of engineered subgrade, structural fill, recompacted soil liner, HDPE pipe, protective layer, drainage channels, sedimentation basins, and leachate management system. Services include preparing required air emission and storm water discharge permit applications for this facility located along the Little Miami River (State Designated Scenic River), including a Storm Water Pollution Prevention Plan (SWPPP) to control site runoff. Had designed a leachate management system, a surface water management system, and overall site grading. Evaluated the floodway line and 100-year flood impact of the Little Miami River adjacent to this site using HEC modeling. The firm has worked closely with the local health department to demonstrate facility expansion plans and flood control practices in this environmentally sensitive area. The firm has prepared various site expansion plans to compare available airspace in relation to final site grade and coordinated topographic mapping of the site. The firm has assisted the owner in phasing the landfill development in such a manner to minimize financial assurance requirements. Prepared the annual license application reports for submission and approval by the Ohio EPA.

D-K Enterprises, Construction and Demolition Debris Facility, Wood County, Ohio

Re-designed surface water management system (drainage channels, stilling basins, and sedimentation basins), and overall site grading. Prepared air emission and storm water discharge permits, a SWPPP, a preliminary site layout. Prepared a SWPPP to control site runoff. **Provided design assistance** in site access road paving, site entry layout, operational manifests, and transportation logs to allow the site operator to better track incoming loads. Coordinated the acquisition of topographic mapping and property line surveys. Also prepared numerous annual license application reports for submission and approval by the Ohio EPA.

Gene Hazen & Sons, Construction and Demolition Debris Facility, Zanesville, Ohio

Provided project engineering, project management, and oversight of this project from designing the final cap to the closure construction certification report. The project was under legal action from the Ohio's Attorney Generals Office. The Ohio EPA closely regulated this project and considered many different closure options in detail. Developed an excellent working relationship with the Ohio EPA Southeast District engineers and general staff, as well as the staff of the Ohio Attorney Generals Office, having regulatory jurisdiction over the site. Prepared the construction certification report for submittal and approval by the Ohio EPA.

North Star Golf Community Development, Delaware County, Ohio

Served as the project engineer providing expertise in surface water management, sediment control, and erosion control practices. Designed and modeled a channel to handle the off-site flow for up to a 100-year storm. Designed and modeled an irrigation impoundment to receive the 100-year storm without any discharge. Provided site grading and site underground utility layout guidance. Developed an excellent working

relationship with the Ohio EPA Central District engineers and general staff and worked very closely with them throughout this project. Served as liaison between several parties including the contractor, surveyor, soils testing lab, and client.

The Ohio State University Experimental Wetlands, Franklin County, Ohio

Project included redesigning the surface water management of facility to better meet the client's needs. This project required more regulated inflow and the outflow of a 6.0 acres wetland area and the ability to possibly control, if so desired. An outlet channel and outlet structure, as well as a pump to control the inflow were all components of the design.

Long Term Control Plan, City of Columbus, Ohio

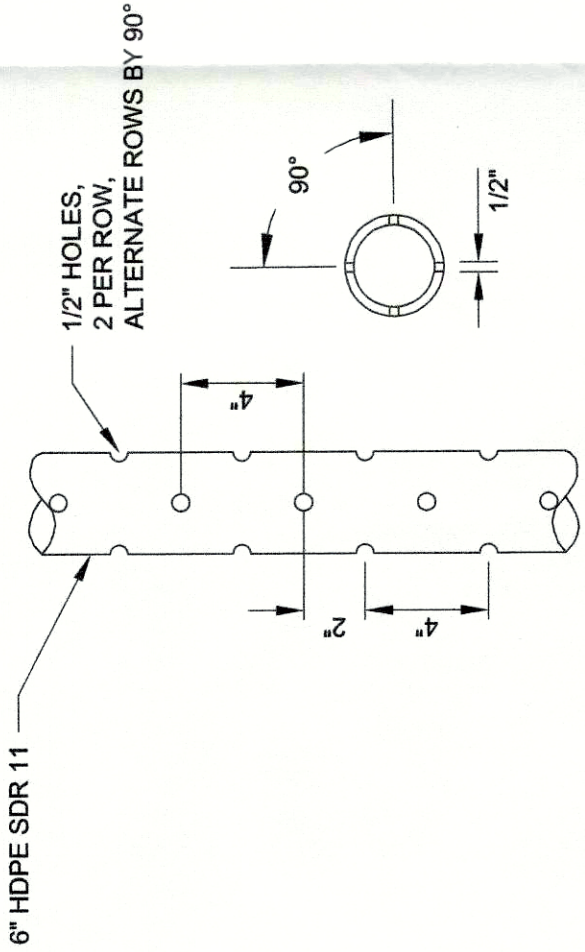
Served as a sampling crew team leader for this project. His crew is responsible for collecting samples from sewer overflows and regulators throughout the City's sewer system during wet weather events. Member of the consultant team led by Malcolm Pirnie, Inc., conducting these studies for the City of Columbus to develop a long-term plan to control and eliminate sewer overflows.

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Appendix D: Project Record Drawings

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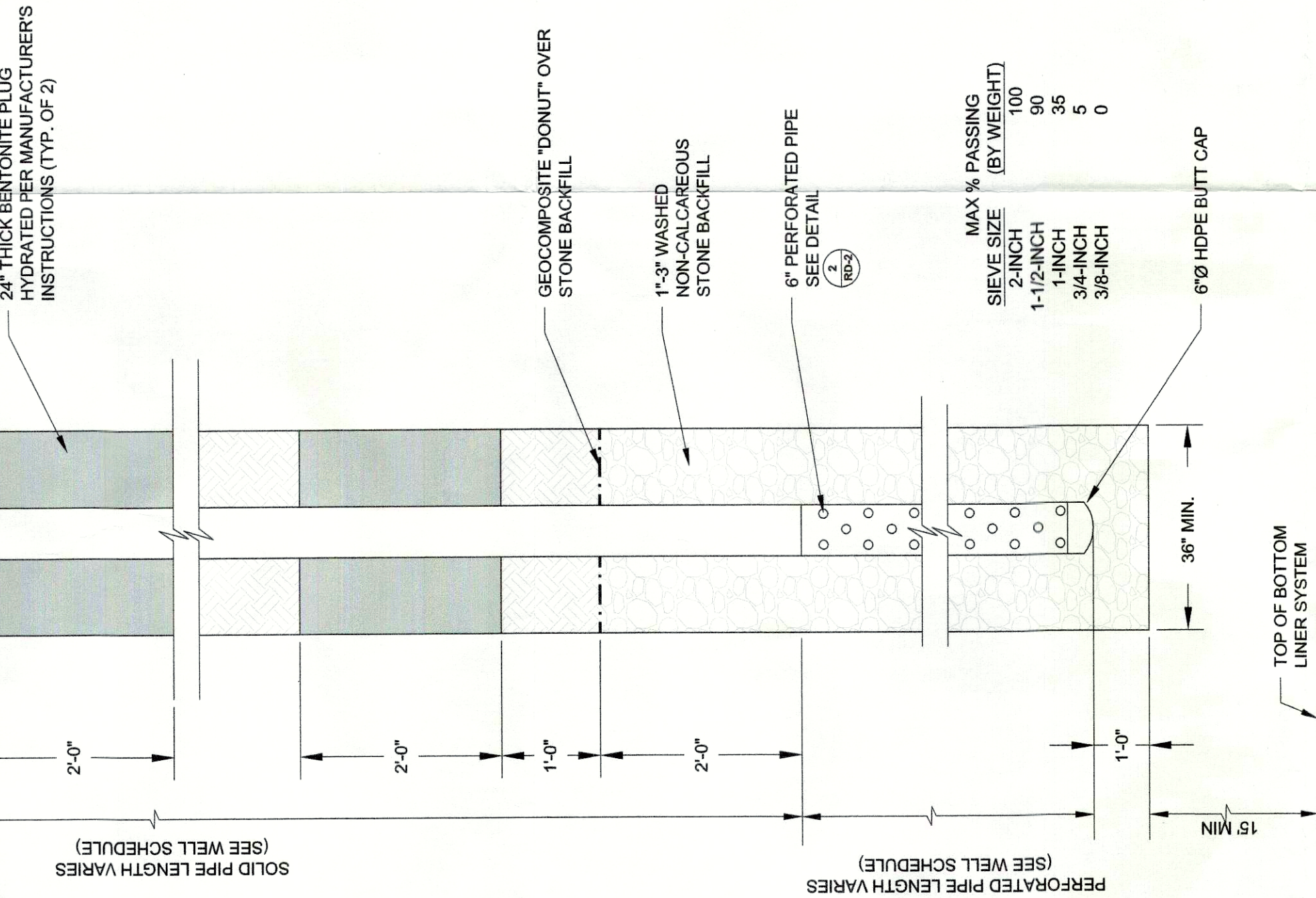
LORAIN COUNTY II EXTRACTION WELL SCHEDULE - 2013



NOTES:

- 1. PERFORATIONS SPACED 90° APART HORIZONTALLY.
- 2. PERFORATIONS SPACED 4' APART VERTICALLY.
- 3. 90° AND 270° ROWS STAGGERED 2" BELOW 0° AND 180° ROWS.

PERFORATED PIPE



NOTES:

- 1. ALL PROPOSED WELL LOCATIONS AND THE EXISTING GROUND SURFACE ELEVATION WERE SURVEYED AT EACH LOCATION AND PROVIDED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WELL DRILLING.
- 2. ENGINEER ADJUSTED WELL SCHEDULE AS NECESSARY BASED ON THE PRE-CONSTRUCTION SURVEY.

LFG EXTRACTION WELL



Brown and Caldwell

SUBMITTED: _____ DATE: _____
APPROVED: _____ DATE: _____

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2", SCALE ACCORDINGLY)	EXTERNAL REFERENCE FILES
1	Bottle.dwg

DESIGNED: JT
DRAWN: NG
CHECKED: RI
APPROVED: RI

ZONE	REV.	DESCRIPTION	BY	DATE	APP.

REPUBLIC SERVICES, INC.

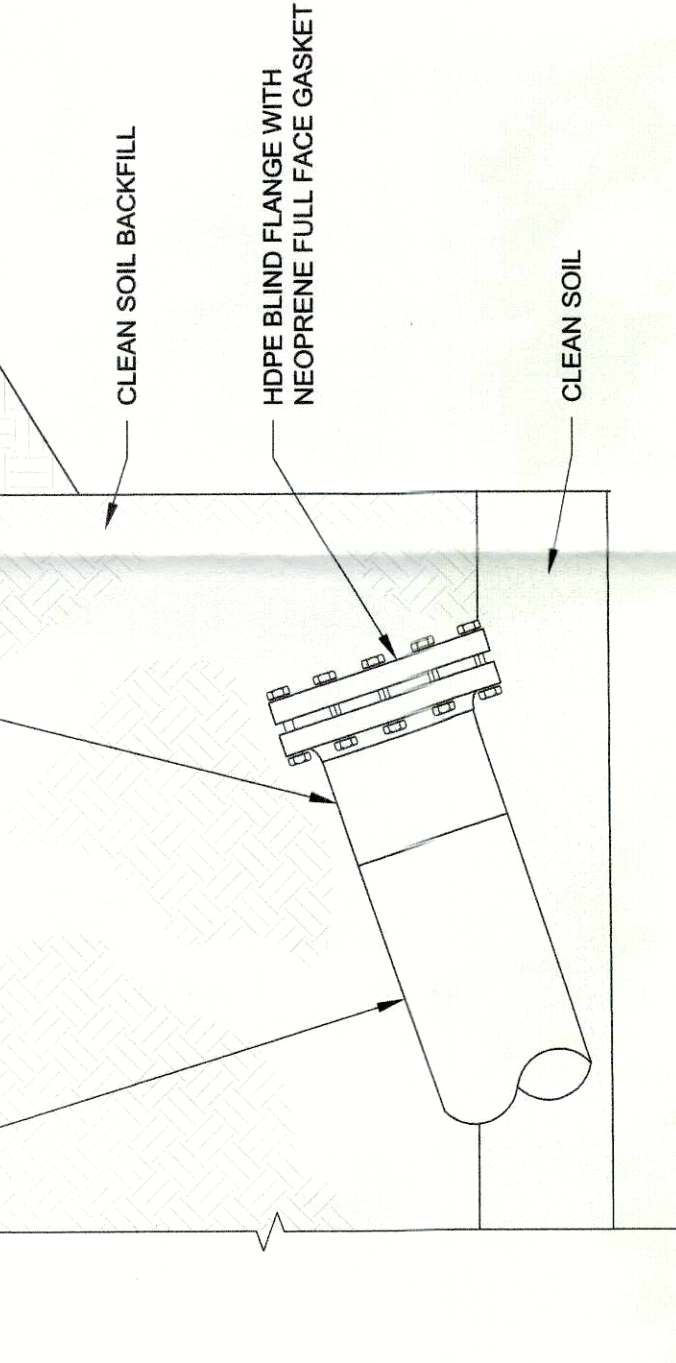
2013 GCOS CONSTRUCTION

FILENAME: 2013 GCOS RD-2
BC PROJECT NUMBER: 14308
CLIENT PROJECT NUMBER: 14308
DRAWING NUMBER: RD-2
SHEET NUMBER: 2 OF 6

WELL ID	NORTHING (FT)	EASTING (FT)	APPROX. ELEVATION (FT)	BOREHOLE DEPTH (FT)	PERFORATED SOLID WALL	PIPE LENGTH (FT)	ABOVE GRADE RISER	THICKNESS OF GRAVEL PACK (FT)
EW-3R3*	596,837.55	2,057,717.66	755	108	87	20	4	90
EW-3R2	596,836.48	2,058,063.18	899.01	95	74	20	4	77
EW-27R	596,988.73	2,059,717.55	813.82	758	43	22	20	4
EW-3R32*	597,445.05	2,059,808.68	864.69	97	76	20	4	25
EW-41R	597,489.48	2,059,464.19	883.67	768	86	77	20	4
EW-42R	597,578.26	2,059,252.24	870.62	760	86	65	20	4
EW-46R2	597,604.38	2,059,065.44	862.74	769	90	69	20	4
EW-46R	597,644.53	2,058,878.77	880.34	755	91	70	20	4
EW-47R2	597,579.71	2,058,783.89	894.24	758	112	91	20	4
EW-46R2	596,588.00	2,058,803.14	813.75	757	71	20	4	74
EW-46R3	597,645.54	2,058,650.54	860.95	757	88	67	20	4
EW-50R2	597,769.94	2,058,475.81	865.37	760	53	20	4	35
EW-51R2	597,484.65	2,058,438.04	882.52	764	105	84	20	4
EW-54R2*	597,771.58	2,058,348.44	848.79	760	74	53	20	4
EW-55R	597,797.34	2,058,084.18	820.30	755	33	12	20	4
EW-56R2	597,481.31	2,058,013.70	891.33	762	108	68	20	4
EW-63R2*	596,584.59	2,057,975.95	916.75	767	120	89	20	4
EW-102R	596,130.68	2,057,665.62	847.77	760	73	54	20	4
EW-111R	596,366.04	2,059,626.21	878.48	765	109	88	20	4
EW-115R2	596,390.24	2,058,585.23	882.72	758	111	90	20	4
EW-119R	596,384.52	2,057,620.34	889.39	757	115	94	20	4
EW-125R2	596,500.76	2,059,284.02	895.34	754	96	76	20	4
EW-128R2	596,741.19	2,057,924.57	909.18	760	113	92	20	4
EW-135R	596,700.95	2,058,314.18	904.42	756	98	77	20	4
EW-152R	596,229.49	2,058,184.26	920.01	764	116	95	20	4
EW-153R	597,243.55	2,058,625.18	906.35	762	120	99	20	4
EW-302R	597,860.35	2,059,811.60	890.83	735	71	50	20	4
EW-304R	597,843.44	2,059,474.10	877.18	758	105	84	20	4
EW-305R	598,016.72	2,058,912.75	835.63	738	80	59	20	4
EW-306R	598,021.08	2,059,788.46	845.06	730	101	60	20	4
EW-307R	598,003.06	2,059,606.60	848.16	731	103	62	20	4
EW-308R	598,013.85	2,059,455.15	941.76	732	95	74	20	4
EW-313R	597,854.91	2,058,316.13	869.29	763	92	71	20	4
EW-314R	597,995.67	2,059,287.53	848.48	734	101	80	20	4
EW-315R	597,995.68	2,059,125.99	850.56	738	96	75	20	4
EW-323	597,846.16	2,058,116.68	858.10	760	61	40	20	4
EW-324	598,018.71	2,058,887.01	849.90	740	91	70	20	4
EW-325	598,034.49	2,058,681.38	851.54	745	81	60	20	4
EW-326	596,034.49	2,059,069.44	823.48	760	51	30	20	4
EW-6R2	596,756.61	2,059,038.10	904.07	780	86	65	20	4
TEW-7R3	596,731.02	2,059,233.64	898.08	765	95	74	20	4

NOTES:

- 1. ASTERISK (*) DENOTES 8-INCH DIAMETER WELL CASING.
- 2. COORDINATES AND FINAL ELEVATIONS FOR BASED ON FIELD SURVEYS CONDUCTED BY WELLET CORPORATION ON FEBRUARY 25, AND AUGUST 19, 2013.



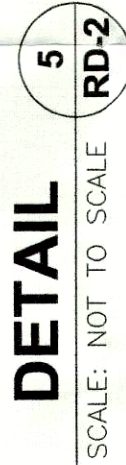
NOTES:

- 1. NUTS, BOLTS, AND WASHERS ARE HOT-DIP GALVANIZED, STAINLESS STEEL. BOLTS AND NUTS ARE NOT PERMITTED.
- 2. ENTIRE SURFACE OF BOLTS, WASHERS, NUTS, AND BACKUP RINGS SHALL BE COATED WITH AN EPOXY RUBBERIZED PRIMER OR EQUAL AFTER TIGHTENING NUTS. FLANGE WRAPPED IN PLASTIC WRAP PRIOR TO BACKFILLING.
- 3. FLANGE INSTALLED WITH THE PROPER SLOPE TO PROVIDE FOR FUTURE CONDENSATE DRAINAGE.

BURIED BLIND FLANGE FOR FUTURE EXPANSION



FLANGE CONNECTION

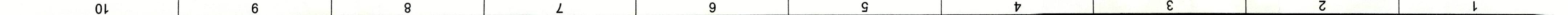


NOTES:

- 1. BASIS OF DETAILS OBTAINED FROM REPUBLIC SERVICES STANDARD LFG DESIGN DETAILS, EFFECTIVE SEPTEMBER 10, 2012.
- 2. WELL SCHEDULE PROVIDED BY BEL ENVIRONMENTAL ENGINEERING OF CANTON, MI DATED DECEMBER 5, 2012.



LORAIN COUNTY II LANDFILL
OBERLIN, OHIO
2013 GCOS
PROJECT RECORD DRAWINGS
DETAILS



1. ALL ABOVE GRADE PIPING WAS REMOVED AND REMAINING BELOW GRADE PIPE WAS CAPPED. EXCAVATION WAS BACKFILLED WITH CLEAN SOIL.
2. CAPS FOR PVC CASINGS WERE GLUED AND CAPS FOR HDPE CASINGS WERE FUSED.
3. WELL-HEAD AND PUMPS WERE REMOVED AND REUSED.
4. PVC CAPS WERE NOT USED TO CAP HDPE PIPE.

DETAIL

SCALE: NOT TO SCALE

2 RD-3



1. MOLDED RIDGE TEES WERE INSTALLED FOR ALL TIE-INS OF LATERALS TO HEADER 12"Ø AND SMALLER. TEE WAS ANGLED TO MAINTAIN SLOPE INTO THE HEADER AS SHOWN IN SECTION VIEW.
2. CONSECUTIVE SIZE REDUCERS WERE USED TO TRANSITION FROM THE MOLDED TEE TO THE LFG LATERAL. FOR EXAMPLE: TO TRANSITION FROM A 12" TEE, A 12"x10" REDUCER, 10"x8" REDUCER, AND 8"x6" REDUCER WAS INSTALLED.
3. ALL HEADERS OUTSIDE OF CAPPED AREA HAVE A MINIMUM BURIAL DEPTH OF 2 FEET.

DETAIL

SCALE: NOT TO SCALE

5 RD-3



DETAIL

4 RD-3

SCALE: NOT TO SCALE

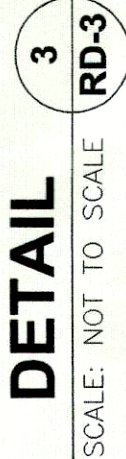


DETAIL

SCALE: NOT TO SCALE

RD-3

3



SUBMITTED: _____ **DATE:** _____

APPROVED: _____ **DATE:** _____

PROJECT MANAGER

SUBMITTED: _____ **DATE:** _____

APPROVED: _____ **DATE:** _____

PROJECT MANAGER

SUBMITTED: _____ **DATE:** _____

APPROVED: _____ **DATE:** _____

PROJECT MANAGER

SUBMITTED: _____ **DATE:** _____

APPROVED: _____ **DATE:** _____

PROJECT MANAGER

SUBMITTED: _____ **DATE:** _____

APPROVED: _____ **DATE:** _____

PROJECT MANAGER



SEP 13 2013
RECEIVED
STANDARD LFG DESIGN DETAILS,

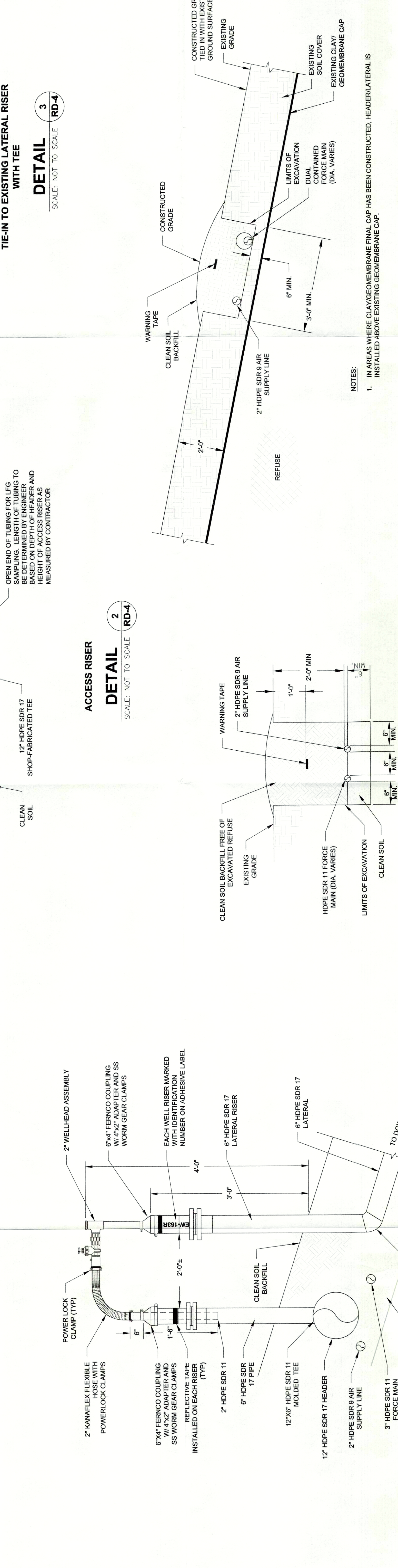
OHIO EPA NEDO



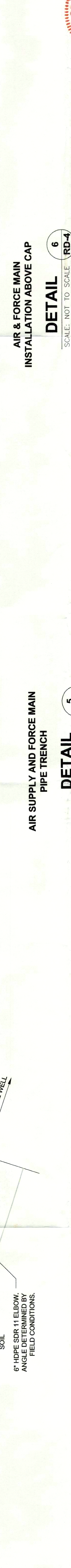
1. THE NUMBER AND TYPES OF PIPES INSTALLED IN THE TRENCH VARIES. SEE SITE PLAN

DETAIL

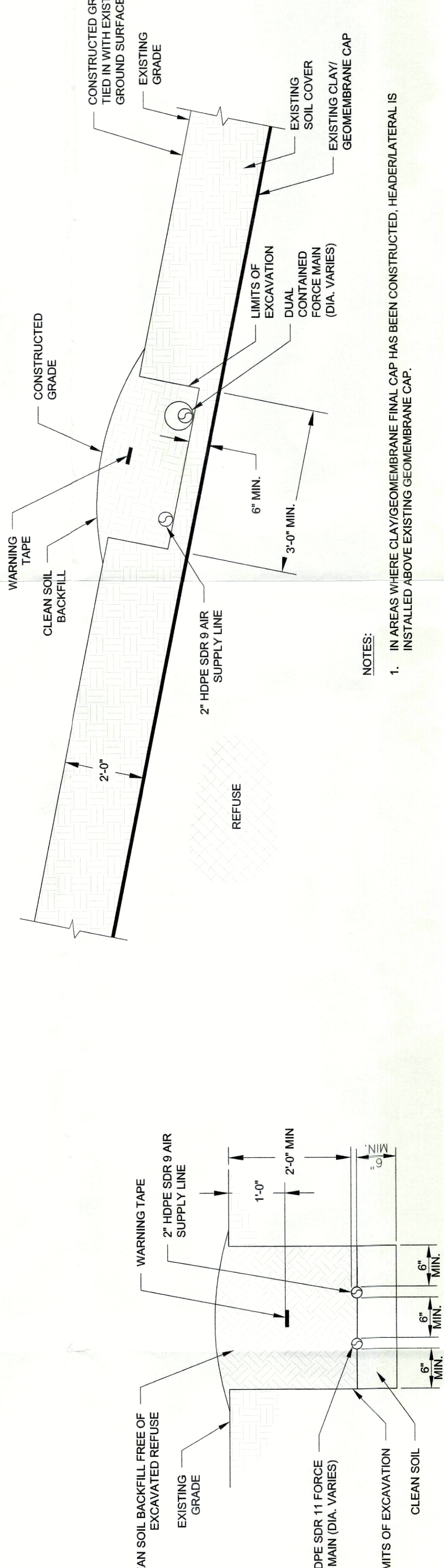
1 RD-4



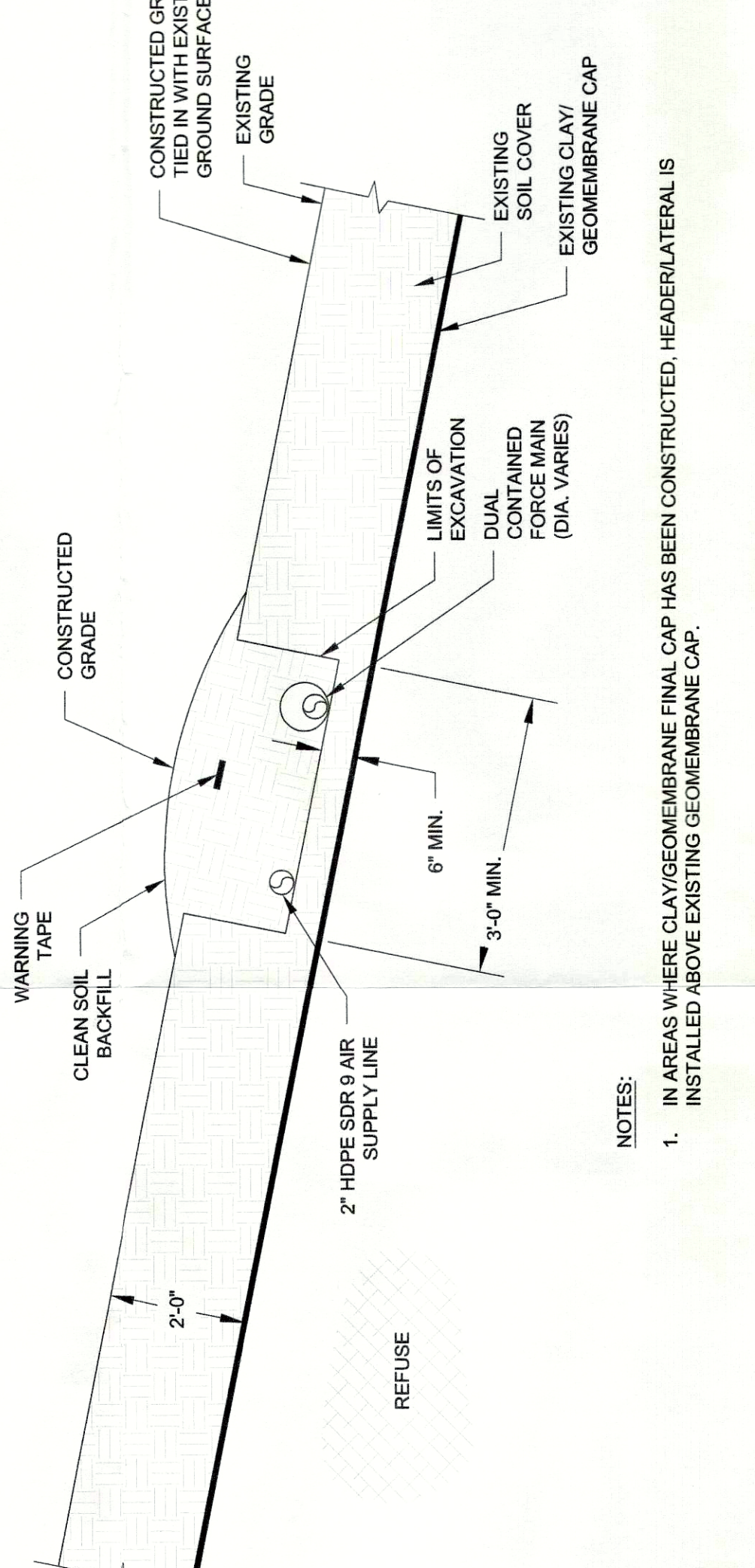
SCALE: NOT TO SCALE RD-4



RD-4

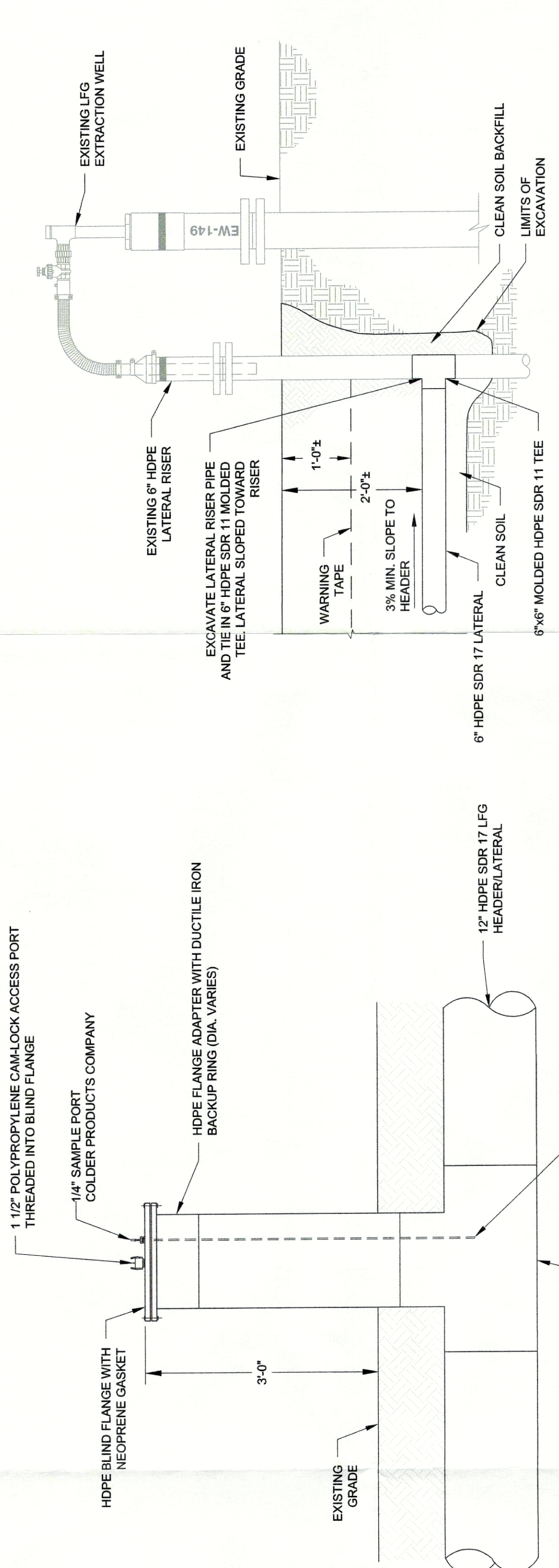


RD
E: NOT TO SCALE



LE: NOT TO SCALE

RD-4
3



1. BASIS OF DETAILS OBTAINED FROM REPUBLIC SERVICES STANDARD LFG DESIGN DETAILS, EFFECTIVE SEPTEMBER 10, 2012.



FILENAME	
2013 GCBS RD-2	
BOC PROJECT NUMBER	
143908	
CLIENT PROJECT NUMBER	
DRAWING NUMBER	
RD-4	
SHEET NUMBER	
4 OF 6	

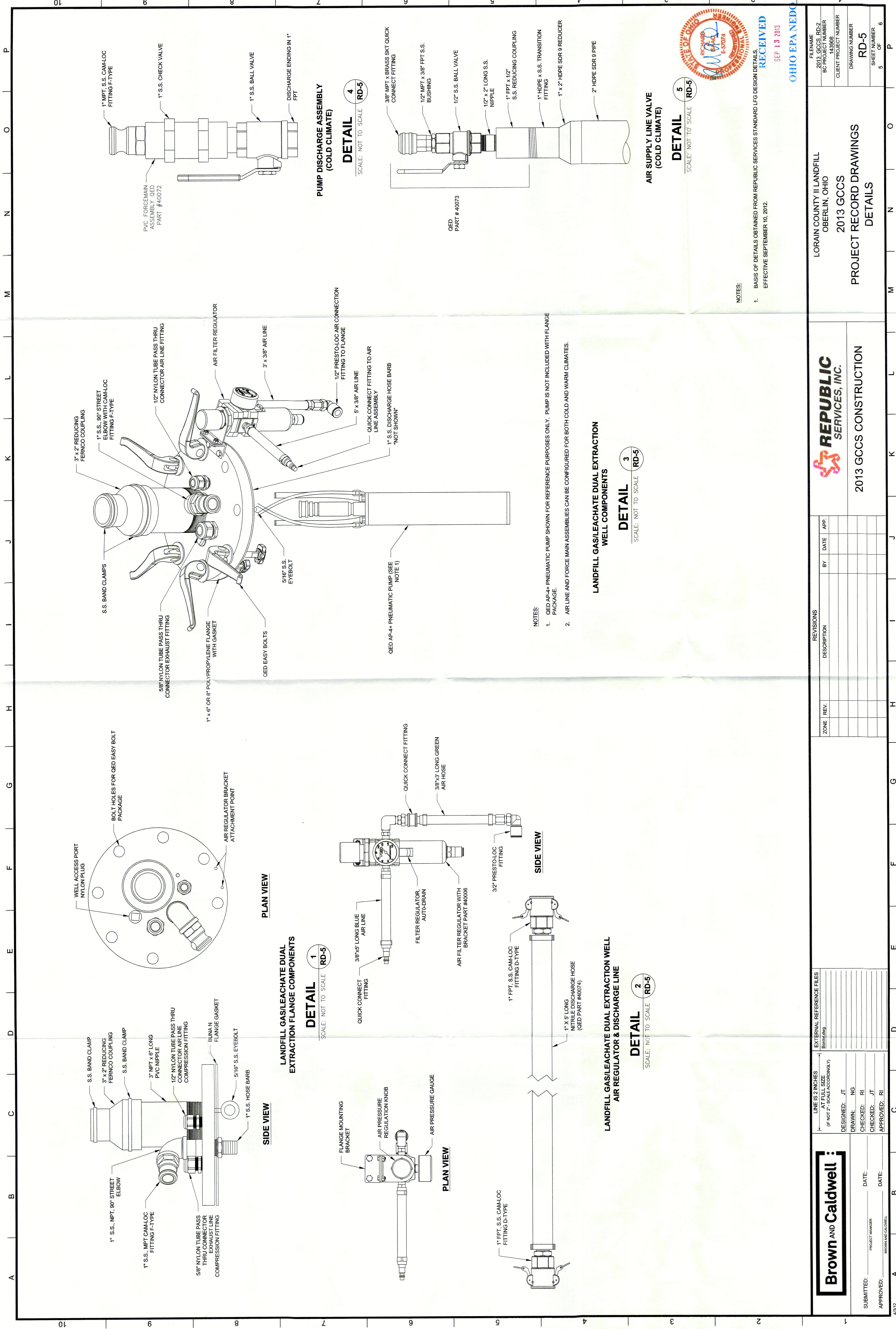
2013 GCCS

DETAILS

2013 GCCS CONSTRUCTION

[illegible]

Brown and Caldwell		LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" SCALE ACCORDINGLY)		EXTERNAL REFERENCE FILES <i>Borden/Eng</i>	
SUBMITTED:	PROJECT MANAGER	DATE:	DESIGNED: JT		
APPROVED:	BROWN AND CALDWELL	DATE:	DRAWN: NG		
			CHECKED: JT		
			APPROVED: RI		



Brown and Caldwell

SUBMITTED: _____ DATE: _____
PROJECT MANAGER: _____
APPROVED: _____ DATE: _____
BROWN AND CALDWELL

EXTERNAL REFERENCE FILES	LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)
Border.dwg	

ZONE	REV.	DESCRIPTION	BY	DATE	APP.



2013 GCCS CONSTRUCTION

LORAIN COUNTY LANDFILL
OBERLIN, OHIO
2013 GCCS
PROJECT RECORD DRAWINGS
DETAILS

FILENAME 2013 GCCS RD-2
BC PROJECT NUMBER 2013GCCS001
CLIENT PROJECT NUMBER
DRAWING NUMBER RD-5
SHEET NUMBER 5 OF 6

SEP 13 2013
RECEIVED



NOTES:
1. BASIS OF DETAILS OBTAINED FROM REPUBLIC SERVICES STANDARD LFG DESIGN DETAILS, EFFECTIVE SEPTEMBER 10, 2012.

1. BASIS OF DETAILS OBTAINED FROM REPUBLIC SERVICES STANDARD LFG DESIGN DETAILS, EFFECTIVE SEPTEMBER 10, 2012.



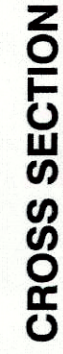
SCALE: NOT TO SCALE



RD-6
SCALE: NOT TO SCALE



PROFILE



DETAIL 1

RD-6
SCALE: NOT TO SCALE

Appendix E: Landfill Gas Extraction Well Boring Logs

American Environmental Group, Ltd.

American Environmental Group, Ltd



American
Environmental
Group Ltd.

Well Log

PROJECT NAME Lorain

DATE: 1-12-13

PROJECT# 10-113100

Drilling	Well Asbuild
<u>15N-302R</u> WELL NUMBER OR NAME	
<u>71'</u> LINEAR FEET OF DRILLING	
<u>71'</u> LINEAR FEET OF COMPLETION	
<u>0</u> LINEAR FEET OF ABANDONMENT	
Time in: <u>6:45 AM</u> Time out: <u>10:30 AM</u>	
Weather conditions: <u>Cloudy</u>	
Site conditions: <u>Dry WET</u>	
Rig hrs: <u>3669</u>	
Service: <u>Radiation Grease</u>	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
10:45 AM	20.9	0	0	1-10	HHT COVER	MOD	DEY	89
11:45 AM	20.9	0	0	10-20	HHT	MOD	DEY	87
12:45 PM	20.9	0	0	20-30	HHT	MOD	DAMP	73
1:45 PM	20.9	0	0	30-40	HHT	MOD	DAMP	67
2:45 PM				40-50	HHT WOOD	MOD	DAMP	85
3:45 PM				50-60	HHT	MOD	DAMP	109
4:45 PM				60-70	HHT	MOD	DAMP	105
5:45 PM				70-80	HHT	MOD	DAMP	100
				80-90				
				90-98				
				100-110				
				110-120				
Notes				120-130				

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SITE SUPERVISOR

DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

Lorain

DATE: 1-14-13

PROJECT#

10-113100

Drilling		Well Asbuild	
EN-452-1 WELL NUMBER OR NAME			
90'	LINEAR FEET OF DRILLING		
90'	LINEAR FEET OF COMPLETION		
0	LINEAR FEET OF ABANDONMENT		
Time in: 6:35 AM Time out: 10:50 AM			
Weather conditions: Cloudy			
Site conditions: DRY WET			
Rig hrs: 3679			
Service: Ralidator Grease			

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
10:45 AM	20.9	0	0	1-10	HH7	MOD	DAMP	63
11:45 AM	20.9	0	0	10-20	HH7	MOD	DAMP	64
12:45 PM	20.9	0	0	20-30	HH7 RUSTIC	MOD	DAMP	68
1:45 PM	20.9	0	9 PPM	30-40	HH7 DUST	MOD	DAMP	74
2:45 PM	20.9	0	0	40-50	HH7	MOD	DAMP	75
3:45 PM	20.7	0	0	50-60	HH7	HEAVY	WET	91
4:45 PM				60-70	HH7 SLUDGE	VERY	WET	94
5:45 PM				70-80	HH7 SLUDGE	VERY	WET	97
				80-90	HH7 SLUDGE	VERY	WET	103
				90-98 91'	HH7 SLUDGE	VERY	WET	92
				100-110				
				110-120				
Notes 1:34 PM. CO HIT (9 PPM)				120-130				

CLIENT REPRESENTATIVE
NAME & TITLE
DATE

AEGL SITE SUPERVISOR
DATE



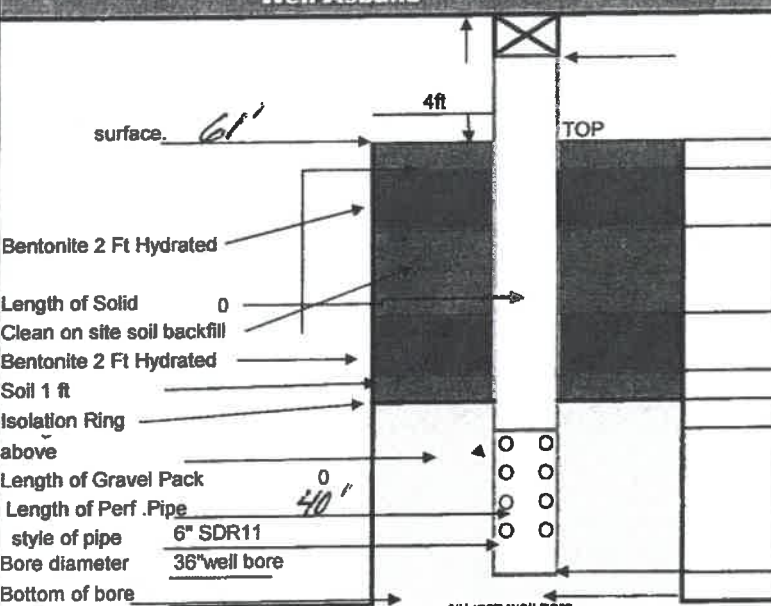
American
Environmental
Group Ltd.

Well Log

PROJECT NAME Lorain

DATE: 1-14-13

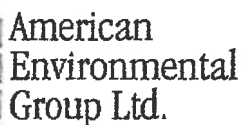
PROJECT# 80-113100

Drilling	Well Asbuild
EW-303 WELL NUMBER OR NAME	
<u>61'</u> LINEAR FEET OF DRILLING	
<u>61'</u> LINEAR FEET OF COMPLETION	
<u>0</u> LINEAR FEET OF ABANDONMENT	
Time in: _____ Time out: _____	
Time in: <u>1:00 PM</u> Time out: <u>3:15 PM</u>	
Weather conditions: <u>Cloudy</u>	
Site conditions: <u>WET</u>	
Rig hrs: <u>3679</u>	
Service: <u>Radiator Grease</u>	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
10:45 AM	20.9			1-10	HH7 WIPIE	MOD	DRY	68
11:45 AM	20.9			10-20	HH7	MOD	DRY	80
12:45 PM				20-30	HH7 CORRET	MOD	DAMP	95
1:45 PM	20.9	0	0	30-40	HH7	MOD	DAMP	95
2:45 PM	20.9	0	0	40-50	HH7 WOOD	MOD	DAMP	85
3:45 PM	20.9	0	0	50-60	HH7	MOD	DAMP	80
4:45 PM				60-70	HH7	MOD	DAMP	80
5:45 PM				70-80				
				80-90				
				90-98				
				100-110				
				110-120				
Notes				120-130				

Amel M. Tedia 1/14/13
CLIENT REPRESENTATIVE DATE
Amel M. Tedia CQA
NAME & TITLE

Emil M. Tedia 1/14/13
AEGL SITE SUPERVISOR DATE



Well Log

Loren Co. Lovell

DATE: 1-15-13

10-11300

Drilling		Well Asbuilt	
<u>EW-46R</u> WELL NUMBER OR NAME			
<u>91'</u> LINEAR FEET OF DRILLING			
<u>91'</u> LINEAR FEET OF COMPLETION			
LINEAR FEET OF ABANDONMENT			
Time in: <u>6:35 AM</u> Time out: <u>1:15 PM</u>			
Weather conditions: <u>SUNNY 35°</u>			
Site conditions: <u>WET</u>			
Rig hrs: <u>3679</u>			
Service: Radiator Grease			

Well Cap

4ft

surface. 91'

TOP

Bentonite 2 Ft Hydrated

Length of solid below surface

Clean on site soil backfill

Bentonite 1 Ft Hydrated

Pea Gravel 1ft

Length of Gravel Pack

Length of Perf .Pipe

style of pipe

Bore diameter 36" well bore

Bottom of bore

36 inch well bore

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	C	0	1-10	HHT	MOD	DRY	65
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	68
8:45 AM	20.9	C	C	20-30	HHT DIRT	MOD	DRY	70
9:45 AM	20.9	C	0	30-40	HHT	MOD	DAMP	88
10:45 AM	20.9	C	0	40-50	HHT DIRT	MOD	DAMP	73
11:45 AM	20.9	0	0	50-60	HHT SLUDGE	HEAVY	WET	73
12:45 PM	20.9	0	0	60-70	HHT SLUDGE	HEAVY	WET	101
1:45 PM	20.9	0	9 PPM	70-80	HHT CONCRETE	MOD	DAMP	104
2:45 PM				80-90	HHT CONCRETE	MOD	DAMP	98
3:45 PM				90-100-91'	HHT	MOD	DAMP	96
4:45 PM								
5:45 PM					TD-			
Notes 1:34 PM CO 9 PPM								

Michael Rodia *1/15/13*
 CLIENT REPRESENTATIVE DATE
Frank A Rodia *CRA*
 NAME & TITLE

AEGL SITE SUPERVISOR 1-15-13
DATE



Well Log

PROJECT NAME Lorain Co. Lawncare
PROJECT# 10-113100

DATE: 1-16-13

[illegible]

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	0	0	1-10	HH7	MOD	DRY	76
7:45 AM	20.9	0	0	10-20	HH7 WIDE	MOD	DRY	84
8:45 AM	20.9	0	7	20-30	HH7 H2S	MOD	DAMP	78
9:45 AM	20.9	0	8	30-40	HH7	MOD	DAMP	87
10:45 AM	20.9	0	8	40-50	HH7	MOD	DAMP	104
11:45 AM				50-60	HH7	MOD	WET	100
12:45 PM				60-70	HH7	MOD	WET	87
1:45 PM				70-80	HH7 WIDE	MOD	DAMP	89
2:45 PM				80-90 88	HH7	MOD	DAMP	96
3:45 PM				90-100				
4:45 PM								
5:45 PM					TD- 88'			
Notes								

CLIENT REPRESENTATIVE 11/16/13
 DATE
 NAME & TITLE CQA

AEGL SITE SUPERVISOR 1-16-13 DATE



Well Log

PROJECT NAME

LORAIN CO. LANDFILL

DATE: 1-17-13

PROJECT#

10-113100

Drilling		Well As-built	
WELL NUMBER OR NAME <u>ENV-324</u>			
<u>91'</u> LINEAR FEET OF DRILLING			
<u>91'</u> LINEAR FEET OF COMPLETION			
<u>0</u> LINEAR FEET OF ABANDONMENT			
Time in: <u>10:50 AM</u> Time out: <u>3:00 AM</u>			
Weather conditions: <u>SUNNY 35°</u>		Length of solid below surface	
Site conditions: <u>WET</u>		Clean on site soil backfill	
Rig hrs: <u>3702</u>		Bentonite 1 Ft Hydrated	
Service: <u>Raidiator</u> <u>Grease</u>		Pea Gravel 1ft	
		Length of Gravel Pack	
		Length of Perf. Pipe <u>70'</u>	
		style of pipe	
		Bore diameter <u>36" well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	61
7:45 AM				10-20	HHT	MOD	DRY	65
8:45 AM				20-30	HHT	MOD	DRY	81
9:45 AM				30-40	HHT	MOD	DRY	95
10:45 AM	20.9	0	0	40-50	PLASTIC	MOD	DRY	97
11:45 AM	20.9	0	0	50-60	HHT	MOD	DAMP	81
12:45 PM	20.9	0	0	60-70	PLASTIC	MOD	DAMP	79
1:45 PM	20.9	0	0	70-80	HHT	MOD	DAMP	80
2:45 PM	20.9	0	0	80-90	HHT	MOD	DAMP	78
3:45 PM	20.9	0	0	90-400 91'	HHT	MOD	DAMP	80
4:45 PM								
5:45 PM								
Notes								

Gautam Todia 1/17/13
CLIENT REPRESENTATIVE DATE
Janet A Todia CQA
NAME & TITLE

Engl Steen 1-17-13
AEGLE SITE SUPERVISOR DATE



Well Log

PROJECT NAME Los Alamitos Co. LANDFILL

DATE: 1-17-13

PROJECT# 10-113100

Drilling		Well Asbuid	
EN-325 WELL NUMBER OR NAME			
81' LINEAR FEET OF DRILLING			
81' LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: <u>6:30 AM</u> Time out: <u>10:00 AM</u>			
Weather conditions: <u>Sunny 35°</u>		Length of solid below surface	
Site conditions: <u>WET</u>		Clean on site soil backfill	
Rig hrs: <u>3702</u>		Bentonite 1 Ft Hydrated	
Service: <u>Raidiator</u> <u>Grease</u>		Pea Gravel 1ft	
		Length of Gravel Pack	
		Length of Perf. Pipe <u>60'</u>	
		style of pipe	
		Bore diameter <u>36" well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	0	0	1-10	HHT	MOD	DRY	84
7:45 AM	20.9	0	0	10-20	HHT CONCRETE	MOD	DRY	87
8:45 AM	20.9	0	0	20-30	HHT CONCRETE	MOD	DRY	88
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	99
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	77
11:45 AM				50-60	HHT WOOD	MOD	DRY	83
12:45 PM				60-70	HHT	MOD	DRY	81
1:45 PM				70-80	HHT DIRT	MOD	DRY	77
2:45 PM				80-81'	HHT	MOD	DAMP	78
3:45 PM				90-100				
4:45 PM								
5:45 PM					TD- 81'			
Notes								

David A. Todia 1/17/13
 CLIENT REPRESENTATIVE DATE
David A. Todia CQA
 NAME & TITLE

Jim H. H. H. 1-17-13
 AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

LORRIN CO. LANDFILL

DATE:

1-18-13

PROJECT#

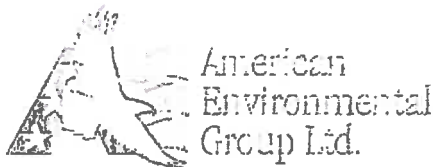
10-113100

Drilling		Well Asbuilt	
EN-35R WELL NUMBER OR NAME			
96' LINEAR FEET OF DRILLING			
96' LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: <u>9:30 AM</u> Time out: <u>2:15 PM</u>		Length of solid below surface	
Weather conditions: <u>SHINY 25°</u>		Clean on site soil backfill	
Site conditions: <u>WET</u>		Bentonite 1 Ft Hydrated	
Rig hrs: <u>3710</u>		Pea Gravel 1ft	
Service: Radiator Grease		Length of Gravel Pack	
		Length of Perf. Pipe <u>75'</u>	
		style of pipe	
		Bore diameter <u>36" well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	59
7:45 AM				10-20	HHT WIRE	MOD	DRY	53
8:45 AM				20-30	HHT	MOD	DRY	72
9:45 AM	20.9	0	0	30-40	HHT PLASTIC	MOD	DRY	75
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	93
11:45 AM	20.9	0	0	50-60	HHT	MOD	DRY	91
12:45 PM	20.9	0	0	60-70	HHT	MOD	DRY	95
1:45 PM	20.9	0	0	70-80	HHT	MOD	DRY	92
2:45 PM	20.9	0	0	80-90	HHT	MOD	DRY	90
3:45 PM				90-100 96'	HHT	MOD	DRY	93
4:45 PM								
5:45 PM					TD- 96'			
Notes								

CLIENT REPRESENTATIVE 1/18/13 DATE
JERRY A. DODD CCA
 NAME & TITLE

AEGL SITE SUPERVISOR 1-18-13 DATE



Well Log

PROJECT NAME LORAIN CO. LANDFILL
PROJECT# 10-113100

DATE: 1-19-13

Drilling	Well Assembled
EW-308R WELL NUMBER OR NAME	
95' LINEAR FEET OF DRILLING	
95' LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: <u>6:45AM</u> Time out: <u>11:00AM</u>	
Weather conditions: <u>Cloudy 35°</u>	
Site conditions: <u>FROZEN</u>	
Rig hrs: <u>3710</u>	
Service: <u>Radiator Grease</u>	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	0	0	1-10	HHT	MOD	DRY	36
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	72
8:45 AM	20.9	0	0	20-30	HHT CONCRETE	MOD	DRY	85
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	95
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	82
11:45 AM	20.9	0	0	50-60	HHT	MOD	DRY	80
12:45 PM				60-70	HHT DIRT	MOD	DRY	97
1:45 PM				70-80	HHT	MOD	DRY	87
2:45 PM				80-90	HHT	MOD	DRY	90
3:45 PM				90-100 95'	HHT	MOD	DRY	88
4:45 PM								
5:45 PM					TD- 95'			
Notes								

Brown + Caldwell 01/19/13
CLIENT REPRESENTATIVE DATE
Bill Foster Eng. III
NAME & TITLE

Eng. III 1-19-13
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

LORAIN CO. LANDFILL

DATE: 1-21-13

PROJECT#

10-113100

Drilling		Well Asbuild	
EW-307R WELL NUMBER OR NAME			
103' LINEAR FEET OF DRILLING			
103' LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: <u>6:50 AM</u> Time out: <u>12:30 PM</u>			
Weather conditions: <u>CLOUDY, SNOWY, BLOWING</u>			
Site conditions: <u>WIND, FROZEN GROUND</u>			
Rig hrs: <u>3717</u>			
Service: <u>Radiator</u> <u>Grease</u>			

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	0	0	1-10	HHT	MOD	DRY	65
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	88
8:45 AM	20.9	0	0	20-30	HHT	MOD	DRY	94
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	76
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	83
11:45 AM	20.9	0	0	50-60	HHT	MOD	DRY	76
12:45 PM	20.9	0	0	60-70	HHT	MOD	DAMP	90
1:45 PM				70-80	HHT	MOD	DAMP	98
2:45 PM				80-90	HHT	MOD	DAMP	110
3:45 PM				90-100	HHT	MOD	DRY	91
4:45 PM				100-103	HHT	MOD	DRY	89
5:45 PM					TD-103'			
Notes								

AGENT REPRESENTATIVE

1/21/13

DATE

James A. T. B. J. CQA

NAME & TITLE

AEGL SITE SUPERVISOR

1/21/13

DATE



Well Log

LORAIN CO. LANDFILL

DATE: 1-22-13

10-113100

Drilling	Well Asbuilt
EW-34R WELL NUMBER OR NAME <u>101'</u> LINEAR FEET OF DRILLING <u>101'</u> LINEAR FEET OF COMPLETION <u>0</u> LINEAR FEET OF ABANDONMENT	
Time in: <u>10:00 AM</u> Time out: <u>2:50 PM</u> Weather conditions: <u>CLOUDY BREEZY SNOWY</u> Site conditions: <u>FROZEN TUNDRA -10° W/C</u> Rig hrs: <u>3724</u> Service: Radiator Grease ☒	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp.
6:45 AM				1-10	HH7	MOD	DRY	38
7:45 AM				10-20	HH7 PLASTIC	MOD	DRY	44
8:45 AM				20-30	HH7 CARPET	MOD	DRY	78
9:45 AM				30-40	HH7	MOD	DRY	64
10:45 AM	20.7	0	0	40-50	HH7	MOD	DRY	68
11:45 AM	20.7	0	0	50-60	HH7 CONCRETE	MOD	DRY	70
12:45 PM	20.7	0	0	60-70	HH7	MOD	DRY	99
1:45 PM	20.7	0	0	70-80	HH7	MOD	DAMP	83
2:45 PM	20.7	0	0	80-90	HH7	MOD	DAMP	82
3:45 PM				90-100	HH7	MOD	DAMP	93
4:45 PM				100-101	HH7	MOD	DAMP	75
5:45 PM					TD- 101'			
Notes								

Brown & Caldwell 01/22/13
CLIENT REPRESENTATIVE DATE
Bill Foster Eng III
NAME & TITLE

Eng. H. H. H. 1-22-13
AEGL SITE SUPERVISOR . DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

LOCAN CO. LANDFILL

DATE:

1-23-13

PROJECT#

10-113100

Drilling		Well Asbuilt	
WELL NUMBER OR NAME <u>EW-26R</u>			
LINEAR FEET OF DRILLING <u>101'</u>			
LINEAR FEET OF COMPLETION <u>101'</u>			
LINEAR FEET OF ABANDONMENT <u>0</u>			
Time in: <u>7:15 AM</u> Time out: <u>12:40 PM</u>		Length of solid below surface	
Weather conditions: <u>CLOUDY, Gusty WINDS</u>		Clean on site soil backfill	
Site conditions: <u>FROZEN 9"</u>		Bentonite 1 Ft Hydrated	
Rig hrs: <u>1652</u>		Pea Gravel 1ft	
Service: Radiator Grease ☒		Length of Gravel Pack	
		Length of Perf. Pipe <u>80'</u>	
		style of pipe	
		Bore diameter <u>36" well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT COVER	MOD	DRY	59
7:45 AM	20.9	0	0	10-20	HHT COVER	MOD	DRY	68
8:45 AM	20.9	0	0	20-30	HHT	MOD	DRY	83
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	74
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	95
11:45 AM	20.9	0	0	50-60	HHT	MOD	DRY	106
12:45 PM	20.9	0	0	60-70	HHT	MOD	DAMP	88
1:45 PM				70-80	HHT	MOD	DAMP	90
2:45 PM				80-90	HHT	MOD	DAMP	91
3:45 PM				90-100 101'	HHT	MOD	DAMP	88
4:45 PM								
5:45 PM					TD- 101'			
Notes								

CLIENT REPRESENTATIVE

DATE

NAME & TITLE

AEGL SITE SUPERVISOR

DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

ERIC V. STEEN

DATE:

1-24-13

PROJECT#

10-113100

Drilling		Well Asbuilt	
EW-50R2 WELL NUMBER OR NAME			
53'	LINEAR FEET OF DRILLING		
53'	LINEAR FEET OF COMPLETION		
0	LINEAR FEET OF ABANDONMENT		
Time in: <u>7:20 AM</u> Time out: <u>11:20 AM</u> Weather conditions: <u>SUNNY 70°</u> Site conditions: <u>FROZEN - 0° WITH WIND CHILL</u> Rig hrs: <u>37.44</u> Service: <u>Radiator</u> Grease ☒			

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT COVER	MOD	DRY	71
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	78
8:45 AM	20.9	0	0	20-30	HHT	MOD	DAMP	78
9:45 AM	20.9	0	0	30-40	HHT	HEAVY	WET	87
10:45 AM	20.9	0	0	40-50	HHT	HEAVY	WET	82
11:45 AM	20.9	0	0	50-58'	HHT	HEAVY	WET	80
12:45 PM				60-70	SCAFFE			
1:45 PM				70-80				
2:45 PM				80-90				
3:45 PM				90-100				
4:45 PM								
5:45 PM					TD- 58'			
Notes								

CLIENT REPRESENTATIVE

6/1/29/13
DATE

AEGL SITE SUPERVISOR

1-24-13
DATE

NAME & TITLE

Bill Fiske
Eng LT



American
Environmental
Group Ltd.

Well Log

PROJECT NAME

Lorain Co. Landfill

DATE: 1-25-13

PROJECT#

10-113100

Drilling		Well Asbuild	
EN-305R WELL NUMBER OR NAME			
80' LINEAR FEET OF DRILLING			
80' LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: <u>7:35 AM</u> Time out: <u>10:48 AM</u>			
Weather conditions: <u>CLOUDY 31° SNOWING</u>		Length of solid below surface	
Site conditions: <u>FROZEN</u>		Clean on site soil backfill	
Rig hrs: <u>3754</u>		Bentonite 1 Ft Hydrated	
Service: Radiator Grease ☒		Pea Gravel 1ft	
		Length of Gravel Pack	
		Length of Perf. Pipe <u>59'</u>	
		style of pipe	
		Bore diameter <u>36" well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	68
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	73
8:45 AM	20.9	0	0	20-30	HHT	MOD	DRY	89
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	88
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	78
11:45 AM				50-60	HHT CONCRETE	MOD	DRY	90
12:45 PM				60-70	HHT	MOD	DRY	71
1:45 PM				70-80	HHT	MOD	DRY	83
2:45 PM				80-90	HHT	MOD	DRY	84
3:45 PM				90-100				
4:45 PM								
5:45 PM					TD- 80'			
Notes								

AGENT REPRESENTATIVE

DATE

AEGL SITE SUPERVISOR

DATE

NAME & TITLE



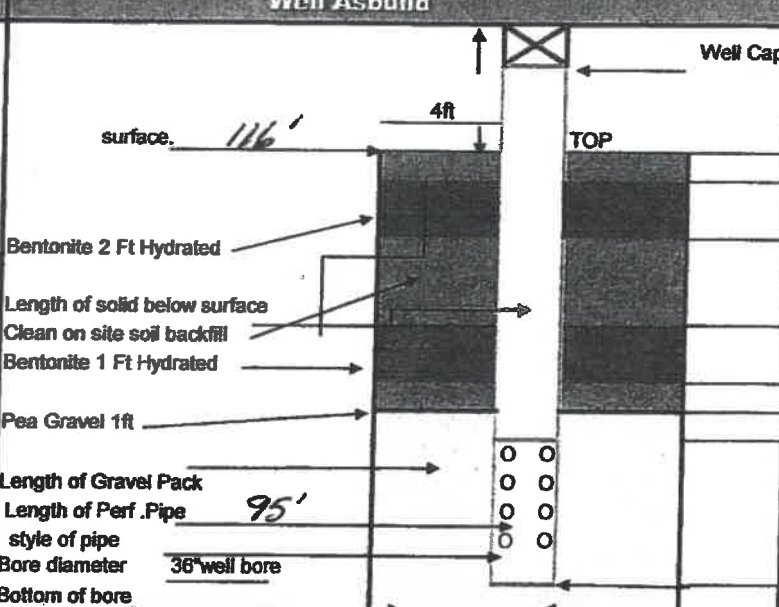
American
Environmental
Group Ltd.

Well Log

PROJECT NAME LORAIN CO. LANDFILL

DATE: 2-4-13

PROJECT# 10-113-100

Drilling	Well Asbuild
EN-152R WELL NUMBER OR NAME	
<u>116'</u> LINEAR FEET OF DRILLING	
<u>116'</u> LINEAR FEET OF COMPLETION	
<u>0</u> LINEAR FEET OF ABANDONMENT	
Time in: <u>7:25 AM</u> Time out: <u>2:00 PM</u>	
Weather conditions: <u>COLD SNOWING</u>	
Site conditions: <u>FROZEN GROUND & SNOW</u>	
Rig hrs: <u>3782</u>	
Service: <u>Radiator Grease</u> ☒	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	76
7:45 AM	20.9	0	0	10-20	HHT WIRE	MOD	DRY	72
8:45 AM	20.9	0	0	20-30	HHT	MOD	DRY	90
9:45 AM	20.9	0	0	30-40	HHT PLASTIC	MOD	DRY	98
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	100
11:45 AM	20.9	0	0	50-60	HHT CONCRETE	MOD	DRY	117
12:45 PM	20.9	0	0	60-70	HHT	MOD	DAMP	104
1:45 PM	20.9	0	0	70-80	HHT DIRT	MOD	DAMP	112
2:45 PM				80-90	HHT	MOD	DAMP	107
3:45 PM				90-100	HHT	MOD	DAMP	107
4:45 PM				100-110	HHT	MOD	DAMP	106
5:45 PM				110-116	HHT TD	MOD	DAMP	100
Notes					70-116'			

Paul M. Todia 2/4/13
CLIENT REPRESENTATIVE DATE
Paul A. Todia CQA
NAME & TITLE

E. J. M. M. 2-4-13
AEGL SITE SUPERVISOR DATE



Well Log

LORAIN Co.

DATE: 2-2-13

10-113140

Drilling	Well Asbuilt
EW-54R WELL NUMBER OR NAME	
74' LINEAR FEET OF DRILLING	
74' LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 7:00 AM Time out: 10:45 AM	
Weather conditions: COLD AND SNOWING	surface. 74'
Site conditions: FROZE GROUND & SLOPE	4ft
Rig hrs:	Well Cap
Service: Radiator Grease ✓	TOP
	Bentonite 2 Ft Hydrated
	Length of solid below surface
	Clean on site soil backfill
	Bentonite 1 Ft Hydrated
	Pea Gravel 1ft
	Length of Gravel Pack
	Length of Perf. Pipe 53'
	style of pipe
	Bore diameter 36" well bore
	Bottom of bore

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	60
7:45 AM	20.9	0	0	10-20	HHT CARPET	MOD	DRY	80.2
8:45 AM	20.9	0	0	20-30	HHT WIRE	MOD	DRY	74
9:45 AM	20.9	0	0	30-40	HHT DIRT	MOD	DRY	76
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	70
11:45 AM				50-60	HHT RUBBER	MOD	DAMP	75
12:45 PM				60-70	HHT	VERY	WET	80
1:45 PM				70-80 74	HHT	MOD	DAMP	81
2:45 PM				80-90				
3:45 PM				90-100				
4:45 PM								
5:45 PM					TD- 74'			
Notes								

South Forks 2/2/13
 AGENT REPRESENTATIVE DATE
 James A Tadio CQA
 NAME & TITLE

AEGL SITE SUPERVISOR 2-2-13 DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME LOREAN CO.
PROJECT# 10-113100

DATE: 2-6-13

Drilling	Well Asbuild
EW-47R2 WELL NUMBER OR NAME <u>EW-47R2</u>	
<u>112'</u> LINEAR FEET OF DRILLING	
<u>112'</u> LINEAR FEET OF COMPLETION	
<u>0</u> LINEAR FEET OF ABANDONMENT	
Time in: <u>8:00 AM</u> Time out: <u>2:00 PM</u> Weather conditions: <u>57° SUNNY</u> Site conditions: <u>Mud</u> Rig hrs: <u>3801</u> Service: Radiator Grease ☒	
Length of solid below surface Clean on site soil backfill Bentonite 1 Ft Hydrated Pea Gravel 1ft Length of Gravel Pack Length of Perf. Pipe <u>91'</u> style of pipe Bore diameter <u>36" well bore</u> Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM				1-10	HHT	MOD	DRY	97
7:45 AM				10-20	HHT	MOD	DAMP	98
8:45 AM	20.9	0	0	20-30	HHT	MOD	DAMP	105
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	103
10:45 AM	20.9	0	0	40-50	HHT	MOD	DAMP	107
11:45 AM	20.9	0	0	50-60	HHT	MOD	WET	96
12:45 PM	20.9	0	0	60-70	HHT	MOD	DAMP	108
1:45 PM	20.9	0	0	70-80	HHT	MOD	DAMP	118
2:45 PM				80-90	HHT	MOD	DAMP	108
3:45 PM				90-100	HHT	MOD	DAMP	103
4:45 PM				100-112	HHT	MOD	DAMP	100
5:45 PM					TD-112'			
Notes								

John McPortia 2/6/13
CLIENT REPRESENTATIVE DATE
James A. Tolia CQA
NAME & TITLE

Emil Steen 2-6-13
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME LORAIN Co. LANDFILL
PROJECT# 10-113-100

DATE: 2-7-13

Drilling		Well Asbuild	
WELL NUMBER OR NAME <u>EW-63R2</u>			
LINEAR FEET OF DRILLING <u>120'</u>			
LINEAR FEET OF COMPLETION <u>120'</u>			
LINEAR FEET OF ABANDONMENT <u>0</u>			
Time in: <u>6:55 am</u> Time out: <u>1:15 am</u>			
Weather conditions: <u>40° CLOUDY</u>		Length of solid below surface	
Site conditions:		Clean on site soil backfill	
Rig hrs: <u>381.2</u>		Bentonite 1 Ft Hydrated	
Service: <u>Radiator</u> <u>Grease</u> ☒		Pea Gravel 1ft	
		Length of Gravel Pack	
		Length of Perf. Pipe <u>99'</u>	
		style of pipe	
		Bore diameter <u>36 inch well bore</u>	
		Bottom of bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45 AM	20.9	0	0	1-10	HHT COVER	MOD	DRY	63
7:45 AM	20.9	0	0	10-20	HHT	MOD	DRY	85
8:45 AM	20.9	0	0	20-30	HHT	MOD	DRY	105
9:45 AM	20.9	0	0	30-40	HHT	MOD	DRY	106
10:45 AM	20.9	0	0	40-50	HHT	MOD	DRY	107
11:45 AM	20.9	0	0	50-60	HHT	MOD	DRY	115
12:45 PM	20.9	0	0	60-70	HHT	MOD	DRY	112
1:45 PM				70-80	HHT	MOD	DAMP	113
2:45 PM				80-80	HHT	MOD	DAMP	108
3:45 PM				90-100	HHT	MOD	DAMP	118
4:45 PM				100-110	HHT	MOD	DAMP	112
5:45 PM				110-120	HHT TD-120'	MOD	DAMP	108
Notes								
					TD-120'			

Paul Mello 2/7/13
AGENT REPRESENTATIVE DATE
James A. Tadio CMA
NAME & TITLE

Eric V. Steen 2-7-13
AEGL SITE SUPERVISOR DATE
ERIC V. STEEN



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/7/2013

Drilling		Well Asbuild	
EW-128R2 WELL NUMBER OR NAME			
113 LINEAR FEET OF DRILLING			
113 LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: 8:15AM	Time out: 2:20PM		
Time in:	Time out:		
Weather conditions: Cloudy			
Site conditions: Dry			
Rlg hrs: 4181			
Service: Raidiator grease			

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	0 1-10	HHT/cover	mod	dry	74
7:45AM	20.9	0	0	10-20	hht/wood	mod	dry	104
8:45AM	20.9	0	0	20-30	hht/plastic	mod	dry	105
9:45AM	20.9	0	0	30-40	hht	mod	dry	108
10:45AM	20.9	0	0	40-50	hht/wire	mod	dry	100
11:45AM	20.9	0	0	50-60	hht	mod	dry	121
12:45PM	20.9	0	0	60-70	hht/plastic	mod	dry	103
1:45PM	20.9	0	0	70-80	hht/metal	mod	dry	102
2:45PM	20.9	0	0	80-90	hht	mod	dry	125
3:45PM				90-100	hht	mod	dry	126
4:45PM				100-110	hht/wood	mod	dry	118
5:45PM				110-120	hht	mod	dry	121
Notes								

Eric Steen 5/7/13
CLIENT REPRESENTATIVE DATE
Janet A Toki's CQA
NAME & TITLE

Eric Steen 5/7/2013
AEGL SITE SUPERVISOR DATE



American
Environmental
Group Ltd.

Well Log

PROJECT NAME Lorain

DATE: 5/8/2013

PROJECT# 10-113-100

Drilling	Well Asbuild
EW-51R2 WELL NUMBER OR NAME	
105 LINEAR FEET OF DRILLING	
105 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 10:20AM Time out: 3:10PM	
Weather conditions: cloudy	
Site conditions: Dry	
Rig hrs: 4191	
Service: Raidiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	0 1-10	HHT/cover	mod	dry	70
7:45AM	20.9	0	0	10-20	hht/plastic	mod	dry	69
8:45AM	20.9	0	0	20-30	hht/wire	mod	dry	115
9:45AM	20.9	0	0	30-40	hht	mod	dry	118
10:45AM	20.9	0	0	40-50	hht/plastic	mod	dry	125
11:45AM	20.9	0	0	50-60	hht/wood	mod	damp	120
12:45PM	20.9	0	35ppm	60-70	hht	mod	damp	118
1:45PM	20.9	0	33ppm	70-80	hht/metal	mod	damp	116
2:45PM	20.9	0	10ppm	80-90	hht	mod	dry	126
3:45PM				90-100	hht	mod	dry	120
4:45PM				100-105	hht	mod	dry	118
5:45PM				110-120				
Notes								
					TD-105			

Eric Steen 5/8/13
CLIENT REPRESENTATIVE DATE
Janet A. Tolia CQA
NAME & TITLE

Eric Steen 5/8/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain

DATE: 5/8/2013

PROJECT# 10-113-100

Drilling	Well Asbuild
EW-27R WELL NUMBER OR NAME	
43 LINEAR FEET OF DRILLING	
43 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 6:30AM Time out: 7:30AM	
Time in: Time out:	
Weather conditions: sunny	
Site conditions: Dry	
Rig hrs: 4191	
Service: Radiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	0 1-10	HHT/cover	mod	dry	78
7:45AM	20.9	0	0	10-20	hht/plastic	mod	dry	97
8:45AM	20.9	0	0	20-30	hht/plastic	mod	dry	95
9:45AM	20.9	0	0	30-40	hht/wood	mod	dry	87
10:45AM	20.9	0	0	40-50	hht/metal	mod	dry	90
11:45AM	20.9	0	0	50-60				
12:45PM	20.9	0	0	60-70				
1:45PM	20.9	0	0	70-80				
2:45PM	20.9	0	0	80-90				
3:45PM				90-100				
4:45PM				100-110				
5:45PM				110-120				
Notes								

5/8/13
 CLIENT REPRESENTATIVE DATE
 JANA A Tol.2 CQA
 NAME & TITLE

Eric Steen 5/8/2013
 AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/9/2013

Drilling	Well Asbuild
EW-56R2 WELL NUMBER OR NAME	
109 LINEAR FEET OF DRILLING	
109 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 6:50AM Time out: 2:20PM	
Weather conditions: sunny	
Site conditions: Dry	
Rig hrs: 4198	
Service: Raidiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	0 1-10	HHT/cover	mod	dry	89
7:45AM	20.9	0	0	10-20	hht/wood	mod	dry	108
8:45AM	20.9	0	20ppm	20-30	hht/fabric	mod	dry	121
9:45AM	20.9	0	22ppm	30-40	hht/wood	mod	dry	122
10:45AM	20.9	0	37ppm	40-50	hht	mod	damp	121
11:45AM	20.9	0	35ppm	50-60	hht	very	wet	119
12:45PM	20.9	0	6ppm	60-70	hht/plastic	mod	damp	132
1:45PM	20.9	0	39ppm	70-80	hht/metal	mod	wet	125
2:45PM	20.9	0	0	80-90	hht/wood	mod	wet	123
3:45PM				90-100	hht	mod	damp	120
4:45PM				100-109	hht/wire	mod	wet	121
5:45PM								
Notes								
					TD-109			

Eric Steen 5/9/13
CLIENT REPRESENTATIVE DATE
Eric Steen CRA
NAME & TITLE

Eric Steen 5/9/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/13/2013

Drilling		Well Asbuild	
EW-55R WELL NUMBER OR NAME			
33 LINEAR FEET OF DRILLING			
33 LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: 6:20AM	Time out: 9:05AM		
Weather conditions: sunny			
Site conditions: Dry			
Rig hrs: 4194			
Service: Radiator Grease			

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	1-10	HHT/cover	mod	damp	70
7:45AM	20.9	0	0	10-20	hht/wood	mod	damp	77
8:45AM	20.9	0	0	20-30	hht/fabric	mod	wet	91
9:45AM	20.9	0	0	30-33	hht/sludge	very	wet	94
10:45AM				40-50				
11:45AM				50-60				
12:45PM				60-70				
1:45PM				70-80				
2:45PM				80-90				
3:45PM				90-100				
4:45PM				100-109				
5:45PM								
Notes								
					TD-33'			

Eric Steen 5/13/13
CLIENT REPRESENTATIVE DATE
James A. T. O. J. C. A.
NAME & TITLE

Eric Steen 5/13/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/13/2013

Drilling	Well Asbuild
EW-41R2 WELL NUMBER OR NAME	
98 LINEAR FEET OF DRILLING	
98 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 9:30AM Time out: 2:52PM	
Time in: Time out:	
Weather conditions: sunny	
Site conditions: Dry	
Rig hrs: 4208	
Service: Raidiator Grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	hht/cover	mod	dry	70
7:45AM				10-20	hht	mod	dry	68
8:45AM				20-30	hht/rubber	mod	dry	75
9:45AM	20.9	0		0 30-40	hht/plastic	mod	dry	77
10:45AM	20.9	0		0 40-50	hht/dirt	mod	dry	99
11:45AM	20.9	0		0 50-60	hht/plastic	mod	dry	102
12:45PM	20.9	0		0 60-70	hht	mod	dry	100
1:45PM	20.9	0		0 70-80	hht/metal	mod	dry	92
2:45PM	20.9	0		0 80-90	hht/wood	mod	dry	109
3:45PM				90-98	hht/sludge	very	wet	111
4:45PM				100-109				
5:45PM								
Notes								
					TD-98			

Janet A. Tadio 5/13/13
CLIENT REPRESENTATIVE DATE
NAME & TITLE

Eric Steen 5/13/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/15/2013

Drilling	Well Asbuild
EW-326 WELL NUMBER OR NAME	
51 LINEAR FEET OF DRILLING	
51 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: <u>2:05PM</u> Time out: <u>3:30PM</u>	
Weather conditions: <u>Cloudy</u>	
Site conditions: <u>Dry</u>	
Rig hrs: <u>4218</u>	
Service: <u>Raidiator grease</u>	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				0 1-10	HHT/cover	mod	dry	57
7:45AM				10-20	hht/paper	mod	dry	75
8:45AM				20-30	hht/wood	mod	dry	80
9:45AM				30-40	hht	mod	dry	93
10:45AM				40-50	hht/metal	mod	dry	85
11:45AM				50-51	hht	mod	dry	98
12:45PM				60-70				
1:45PM	20.9	0	0	70-80				
2:45PM	20.9	0	0	80-91				
3:45PM	20.9	0	0	90-100				
4:45PM				100-110				
5:45PM				110-120				
Notes								
				TD-51				

James A. Tolia 5/15/13
CLIENT REPRESENTATIVE DATE
James A. Tolia CQA
NAME & TITLE

Eric Steen 5/15/2013
AEGL SITE SUPERVISOR DATE

Eric Steen	5/15/2013
AEGL SITE SUPERVISOR	DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/16/2013

Drilling	Well Asbuild
TEW-6R2 WELL NUMBER OR NAME	
86 LINEAR FEET OF DRILLING	
86 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 11:20AM Time out: 3:15PM	
Weather conditions: Cloudy	
Site conditions: Dry	
Rig hrs: 4240	
Service: Raidiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	HHT/cover	mod	dry	57
7:45AM				10-20	hht/plastic	mod	dry	89
8:45AM				20-30	hht/concrete	mod	dry	98
9:45AM				30-40	hht	mod	dry	114
10:45AM	20.9	0		40-50	hht/metal	mod	dry	104
11:45AM	20.9	0	0	50-51	hht	mod	dry	127
12:45PM	20.9	0	0	60-70	hht	mod	damp	130
1:45PM	20.9	0	0	70-80	hht/wood	mod	damp	136
2:45PM	20.9	0	0	80-90	hht	mod	wet	122
3:45PM	20.9	0	0	90-100				
4:45PM				100-110				
5:45PM				110-120				
Notes								
				TD-86				

CLIENT REPRESENTATIVE 5/16/13 DATE

 NAME & TITLE Eric Steen

Eric Steen
 AEGL SITE SUPERVISOR

5/16/2013
 DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/16/2013

Drilling				Well Asbuild				
EW-39R2 WELL NUMBER OR NAME								
97 LINEAR FEET OF DRILLING								
97 LINEAR FEET OF COMPLETION								
0 LINEAR FEET OF ABANDONMENT								
Time in: 6:00AM		Time out: 10:30PM						
Weather conditions: Cloudy								
Site conditions: Dry								
Rig hrs: 4240								
Service: Radiator grease								
EW- is a 8" well								
Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0		0 1-10	hht/cover	mod	dry	59
7:45AM	20.9	0		0 10-20	hht/paper	mod	dry	79
8:45AM	20.9	0		0 20-30	hht/wood	mod	dry	97
9:45AM	20.9	0		0 30-40	hht	mod	dry	105
10:45AM	20.9	0		0 40-50	hht/metal	mod	dry	109
11:45AM				50-51	hht	mod	dry	100
12:45PM				60-70	hht	mod	damp	116
1:45PM				70-80	hht/wood	mod	damp	117
2:45PM				80-91	hht	mod	damp	126
3:45PM				90-97	hht	mod	damp	108
4:45PM				100-110				
5:45PM				110-120				
Notes								
				TD-97'				

Eric Steen 5/16/13
CLIENT REPRESENTATIVE DATE
Eric Steen
NAME & TITLE

Eric Steen 5/16/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain

DATE: 5/17/2013

PROJECT# 10-113-100

Drilling		Well Asbuilt	
EW-111R WELL NUMBER OR NAME			
109 LINEAR FEET OF DRILLING			
109 LINEAR FEET OF COMPLETION			
LINEAR FEET OF ABANDONMENT			
Time in: 12:10PM	Time out: 4:30PM		
Time in:	Time out:		
Weather conditions: Cloudy			
Site conditions: Dry			
Rig hrs: 4240			
Service: Radiator grease			
		surface 109 4.5 FT TOP Bentonite 2 Ft Hydrated Length of Solid 0 Clean on site soil backfill Bentonite 2 Ft Hydrated Soil 1 ft Isolation Ring above Length of Gravel Pack Length of Perf. Pipe 88 style of pipe Bore diameter 36" well bore Bottom of bore 36 inch well bore	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	HHT/cover	mod	dry	73
7:45AM				10-20	hht/paper	mod	dry	91
8:45AM				20-30	hht/metal	mod	dry	110
9:45AM				30-40	hht	mod	dry	105
10:45AM				40-50	hht/metal	mod	dry	108
11:45AM	20.9	0		0 50-60	hht	mod	dry	96
12:45PM	20.9	0		0 60-70	hht	mod	dry	82
1:45PM	20.9	0		0 70-80	hht/dirt	mod	dry	86
2:45PM	20.9	0		0 80-90	hht/dirt	mod	dry	72
3:45PM	20.9	0		0 90-100	hht/plastic	mod	dry	75
4:45PM	20.9	0	0	100-110	hht	mod	dry	80
5:45PM				110-120				
Notes					TD-109			

CLIENT REPRESENTATIVE DATE
Tara A. Adia CAA

Eric Steen	5/17/2013
AEGL SITE SUPERVISOR	DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/17/2013

Drilling	Well Asbuild
EW-111R WELL NUMBER OR NAME	
LINEAR FEET OF DRILLING	
LINEAR FEET OF COMPLETION	
21 LINEAR FEET OF ABANDONMENT	
Time in: 10:50AM Time out: 12:00PM	
Weather conditions: Cloudy	
Site conditions: Dry	
Rig hrs: 4240	
Service: Raidiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0		0 1-10	HHT/cover	mod	dry	69
7:45AM	20.9	0		0 10-20	hht/metal	mod	dry	83
8:45AM	20.9	0		0 20-30	hht/metal	mod	dry	84
9:45AM	20.9	0		0 30-40				
10:45AM				40-50				
11:45AM				50-60				
12:45PM				60-70				
1:45PM				70-80				
2:45PM				80-90				
3:45PM				90-100				
4:45PM				100-110				
5:45PM				110-120				
Notes					TD-21			

Don Stork 5/17/13
CLIENT REPRESENTATIVE DATE
Bret A Todio CQA
NAME & TITLE

Eric Steen 5/17/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME

Lorain

PROJECT#

10-113-100

DATE:

5/17/2013

Drilling		Well Asbuilt						
TEW-7R2 WELL NUMBER OR NAME 95 LINEAR FEET OF DRILLING 95 LINEAR FEET OF COMPLETION 0 LINEAR FEET OF ABANDONMENT Time in: 6:18AM Time out: 10:30AM Weather conditions: Cloudy Site conditions: Dry Rig hrs: 4240 Service: Radiator grease		Well Boring Log Bottom of bore Bore diameter 36" well bore style of pipe Length of Part . Pipe 74 Length of Gravel Pack above Isolation Ring Soil 1 ft Bentonite 2 Ft Hydrated Clean on site soil backfill Length of Solid 0 Bentonite 2 Ft Hydrated surface 95 4.5 FT TOP all men well bore						
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	0 1-10	hht/cover	mod	dry	63
7:45AM	20.9	0	0	0 10-20	hht/wood	mod	dry	76
8:45AM	20.9	0	0	0 20-30	hht/steel	mod	dry	81
9:45AM	20.9	0	0	0 30-40	hht	mod	dry	96
10:45AM				40-50	hht/capet	mod	dry	111
11:45AM				50-60	hht	mod	dry	114
12:45PM				60-70	hht/metal	mod	dry	120
1:45PM				70-80	hht/wire	mod	dry	117
2:45PM				80-90	hht	mod	dry	117
3:45PM				90-100	hht	mod	dry	121
4:45PM				100-110				
5:45PM				110-120				
Notes				TD-95				

NAME & TITLE
 CLIENT REPRESENTATIVE
 DATE 5/17/13
 Janet R. Todd COA

Eric Steen
 AEG SITE SUPERVISOR
 DATE 5/17/2013



Well Log

OHIO EPA NEDO

RECEIVED
OCT 29 2013

PROJECT NAME

Lorain

PROJECT#

10-113-100

DATE:

5/18/2013

Drilling		Monitoring Log		Well Boring Log	
EW-125R2 WELL NUMBER OR NAME 99 LINEAR FEET OF DRILLING 99 LINEAR FEET OF COMPLETION 0 LINEAR FEET OF ABANDONMENT		Time In: 6:00AM Time out: 10:35AM Weather conditions: cloudy Site conditions: Dry Rig hrs: 4258 Service: Radiator grease		Well Asbuilt TOP 4.5 FT surface 99 Bentonite 2 Ft Hydrated Length of Solid 0 Clean on site soil backfill Bentonite 2 Ft Hydrated Isolation Ring Soil 1 ft Length of Gravel Pack Length of Perf. Pipe style of pipe Bore diameter Bottom of bore	
Time 6:45AM 20.9 7:45AM 20.9 8:45AM 20.9 9:45AM 20.9 10:45AM 20.9		OXYGEN 0 0 0 0 0		LEL / CO 0 0 0 0 0	
Time 11:45AM 12:45PM 1:45PM 2:45PM 3:45PM 4:45PM 5:45PM		Notes		Depth 0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100 100-110 110-120	
Composition HHT/cover hnt/plastic hnt/paper hnt/wood hnt/plastic hnt hnt hnt/plastic hnt hnt/slugge		Degree of mod mod mod mod mod mod mod mod mod mod		Degree of dry dry dry dry dry damp damp damp wet	
Temp 78 88 99 113 84 120 119 116 124 121		Moisture mod mod mod mod mod mod mod mod mod mod		TD-99'	

NAME & TITLE
 Eric Steen
 AEG SITE SUPERVISOR
 DATE 5/18/2013
 CLIENT REPRESENTATIVE
 DATE 5/18/2013
 Project # 10-113-100



Well Log

PROJECT NAME

Lorain

PROJECT#

10-113-100

DATE:

5/20/2013

Drilling		Well Asbuilt	
EW-116R2 WELL NUMBER OR NAME			
111 LINEAR FEET OF DRILLING			
111 LINEAR FEET OF COMPLETION			
0 LINEAR FEET OF ABANDONMENT			
Time in: 6:55AM	Time out: 1:30PM		
Weather conditions: cloudy			
Site conditions: Dry			
Rig hrs: 4266			
Service: Ralidator grease			
Isolation Ring			
Bentonite 2 Ft Hydrated			
Clean on site soil backfill			
Length of Solid 0			
Bore diameter 36" well bore			
Length of Perforated Pipe 90			
Style of pipe			
Bottom of bore			
TOP			
4.5 FT			
surface 111			
36 inch well bore			
Well Boring Log			
Monitoring Log			
Time	OXYGEN	H2S	LEL / CO
6:45AM	20.9	0	0
7:45AM	20.9	0	0
8:45AM	20.9	0	0
9:45AM	20.9	0	0
10:45AM	20.9	0	0
11:45AM	20.9	0	0
12:45PM	20.9	0	0
1:45PM	20.9	0	0
2:45PM			
3:45PM			
4:45PM			
5:45PM			
Notes			
TD-111			
Depth	Composition	Degree of Decomp.	Degree of Moisture
0-1-10	HHT/cover	mod	dry
10-20	hht/plastic	mod	dry
20-30	hht/paper	mod	damp
30-40	hht/wood	mod	damp
40-50	hht/plastic	mod	damp
50-60	hht	mod	damp
60-70	hht/plastic	mod	dry
70-80	hht/wood	mod	dry
80-90	hht/wood	mod	dry
90-100	hht/plastic	mod	dry
100-110	hht/dirt	mod	dry
110-120			

Eric Steen
AEG SITE SUPERVISOR
5/20/2013
DATE

CLIENT REPRESENTATIVE
Jesse M. Steen
5/20/2013
DATE
Project # 10-113-100
NAME & TITLE



Well Log

PROJECT NAME

Lorain

PROJECT#

10-113-100

DATE:

5/23/2013

Drilling		Well Asbuild	
EW-135R WELL NUMBER OR NAME		4.5 FT	
98 LINEAR FEET OF DRILLING		TOP	
98 LINEAR FEET OF COMPLETION		surface.	
0 LINEAR FEET OF ABANDONMENT			
Time in: 8:00AM	Time out: 10:31AM		
Weather conditions: Cloudy			
Site conditions: Dry			
Rig hrs: 4268			
Service: Ratiator grease			
Length of Solid 0			
Bentonite 2 Ft Hydrated			
Clean on site soil backfill			
Bentonite 2 Ft Hydrated			
Soil 1 ft			
Isolation Ring			
above			
Length of Gravel Pack			
Length of Perf. Pipe			
style of pipe			
Bore diameter			
Bottom of bore			
36" well bore			
36 inch well bore			
Well Boring Log		Well Asbuild	
Time		Degree of	
OXYGEN		Decomp.	
H2S		Moisture	
LEL / CO		Temp	
Depth		Composition	
Composition		Degree of	
Decomp.		Moisture	
Temp		Temp	
6:45AM		74	
20.9		mod	
0		dry	
0		HHT/cover	
0		10-20	
0		hnt/paper	
0		mod	
0		dry	
0		103	
0		hnt/metal	
0		mod	
0		dry	
0		121	
0		hnt	
0		mod	
0		dry	
0		100	
0		hnt	
0		mod	
0		dry	
0		102	
0		hnt/plastic	
0		mod	
0		dry	
0		116	
0		hnt/paper	
0		mod	
0		dry	
0		118	
0		hnt/wood	
0		mod	
0		dry	
0		113	
0		hnt/metal	
0		mod	
0		damp	
0		120	
0		hnt/sludge	
0		heavy	
0		wet	
0		113	
0		100-110	
0		110-120	
0		TD-98	
Notes			
5:45PM			
4:45PM			
3:45PM			
2:45PM			
1:45PM			
12:45PM			
11:45AM			
10:45AM			
9:45AM			
8:45AM			
7:45AM			
6:45AM			

NAME & TITLE
Eric Steen
AEG SITE SUPERVISOR
DATE
5/23/2013

CLIENT REPRESENTATIVE
DATE
5/23/13



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/23/2013

Drilling	Well Asbuild
EW-13R2 WELL NUMBER OR NAME	
95 LINEAR FEET OF DRILLING	
95 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 11:00AM Time out: 2:33PM	
Weather conditions: Cloudy	
Site conditions: Rain/dust control	
Rig hrs: 4268	
Service: Raidlator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	HHT/cover	mod	dry	68
7:45AM				10-20	hht/paper	mod	dry	104
8:45AM				20-30	hht/carpet	mod	dry	100
9:45AM				30-40	hht	mod	dry	106
10:45AM	20.9	0	0	40-50	hht/wood	mod	dry	115
11:45AM	20.9	0	0	50-60	hht/wood	mod	dry	110
12:45PM	20.9	0	0	60-70	hht/paper	mod	dry	116
1:45PM	20.9	0	0	70-80	hht/plastic	mod	dry	111
2:45PM	20.9	0	0	80-90	hht/wood	mod	damp	103
3:45PM				90-100	hht/sludge	heavy	wet	108
4:45PM				100-110				
5:45PM				110-120				
Notes								
					TD-95			

[Signature] 5/23/13
CLIENT REPRESENTATIVE DATE
[Signature] NAME & TITLE

Eric Steen
AEGL SITE SUPERVISOR

5/23/2013
DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/29/2013

Drilling	Well Asbuild
EW-9R3 WELL NUMBER OR NAME	
108 LINEAR FEET OF DRILLING	
108 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: 6:05AM Time out: 11:37PM	
Time in: Time out:	
Weather conditions: sunny	
Site conditions: Dry	
Rig hrs: 4198	
Service: Raidiator grease	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	1-10	HHT/cover	mod	dry	73
7:45AM	20.9	0	0	10-20	hht/paper	mod	dry	85
8:45AM	20.9	0	0	20-30	hht/wood	mod	dry	96
9:45AM	20.9	0	0	30-40	hht/plastic	mod	dry	102
10:45AM	20.9	0	0	40-50	hht	mod	dry	114
11:45AM	20.9	0	0	50-60	hht/wood	mod	dry	107
12:45PM				60-70	hht/dirt	mod	dry	112
1:45PM				70-80	hht	mod	dry	117
2:45PM				80-90	hht	mod	damp	115
3:45PM				90-100	hht/wood	very	wet	119
4:45PM				100-110	hht/sludge	very	wet	108
5:45PM								
Notes								
					TD-108			

Eric Steen 5/29/13
CLIENT REPRESENTATIVE DATE
Eric Steen CBA
NAME & TITLE

Eric Steen 5/29/2013
AEGL SITE SUPERVISOR DATE



Well Log

Lorain

DATE: 5/29/2013

10-113-100

Drilling				Well Asbuild				
EW-119R WELL NUMBER OR NAME								
115 LINEAR FEET OF DRILLING								
115 LINEAR FEET OF COMPLETION								
0 LINEAR FEET OF ABANDONMENT								
Time in: 11:53AM Time out: 4:00PM								
Time in: Time out:				Length of Solid 0				
Weather conditions: sunny				Clean on site soil backfill				
Site conditions: Dry				Bentonite 2 Ft Hydrated				
Rig hrs: 4198				Soil 1 ft				
Service: Raladiator grease				Isolation Ring				
				above				
				Length of Gravel Pack				
				Length of Perf. Pipe 94				
				style of pipe				
				Bore diameter 36"well bore				
				Bottom of bore				
				36 inch well bore				
Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	HHT/cover	mod	dry	86
7:45AM				10-20	hht/plastic	mod	dry	97
8:45AM				20-30	hht/plastic	mod	dry	104
9:45AM				30-40	hht/dirt	mod	dry	89
10:45AM				40-50	hht/wood	mod	dry	104
11:45AM	20.9	0	0	50-60	hht/plastic	mod	dry	108
12:45PM	20.9	0	0	60-70	hht	mod	dry	109
1:45PM	20.9	0	0	70-80	hht/plastic	mod	dry	109
2:45PM	20.9	0	0	80-90	hht/carpet	mod	dry	103
3:45PM	20.9	0	0	90-100	hht/metal	mod	dry	101
4:45PM				100-110	hht/wood	mod	dry	108
5:45PM				110-120	hht/paper	mod	dry	111
Notes				TD-115				

Client Representative Ernest A Rodia 5/29/13
 DATE
 Name & Title Ernest A Rodia CWA

Eric Steen
AEGL SITE SUPERVISOR

5/29/2013
DATE



Well Log

PROJECT NAME Lorain
PROJECT# 10-113-100

DATE: 5/31/2013

Drilling	Well Asbuild
EW-102R WELL NUMBER OR NAME	
73 LINEAR FEET OF DRILLING	
73 LINEAR FEET OF COMPLETION	
0 LINEAR FEET OF ABANDONMENT	
Time in: <u>6:00AM</u> Time out: <u>9:30AM</u>	
Weather conditions: <u>Cloudy</u>	
Site conditions: <u>Dry</u>	
Rig hrs: <u>4306</u>	
Service: <u>Radiator grease</u>	

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM	20.9	0	0	1-10	HHT/cover	mod	dry	74
7:45AM	20.9	0	0	10-20	hht/wood	mod	dry	88
8:45AM	20.9	0	0	20-30	hht/wire	mod	dry	97
9:45AM	20.9	0	0	30-40	hht/wood	mod	dry	101
10:45AM				40-50	hht/metal	mod	dry	100
11:45AM				50-60	hht/wood	mod	dry	111
12:45PM				60-70	hht	mod	dry	113
1:45PM				70-80	hht/metal	mod	dry	109
2:45PM				80-90				
3:45PM				90-100				
4:45PM				100-110				
5:45PM				110-120				
Notes				TD-73				

Eric Steen 5/31/13
CLIENT REPRESENTATIVE DATE
Isaac A. Todor CQM
NAME & TITLE

Eric Steen 5/31/2013
AEGL SITE SUPERVISOR DATE



Well Log

PROJECT NAME Lorain

DATE: 5/31/2013

PROJECT# 10-113-100

[illegible]

Monitoring Log				Well Boring Log				
Time	OXYGEN	H2S	LEL / CO	Depth	Composition	Degree of Decomp.	Degree of Moisture	Temp
6:45AM				1-10	HHT/cover	mod	dry	98
7:45AM				10-20	hht/dirt	mod	dry	81
8:45AM				20-30	hht/paper	mod	dry	86
9:45AM	20.9	0	0	30-40	hht	mod	dry	92
10:45AM	20.9	0	0	40-50	hht/plastic	mod	dry	92
11:45AM	20.9	0	0	50-60	hht/plastic	mod	dry	95
12:45PM	20.9	0	0	60-70	hht/tires	mod	dry	82
1:45PM	20.9	0	0	70-80	hht/metal	mod	dry	100
2:45PM	20.9	0	0	80-90	hht	mod	dry	102
3:45PM				90-100	hht/dirt	mod	dry	98
4:45PM				100-110				
5:45PM				110-120				
Notes					TD-92			

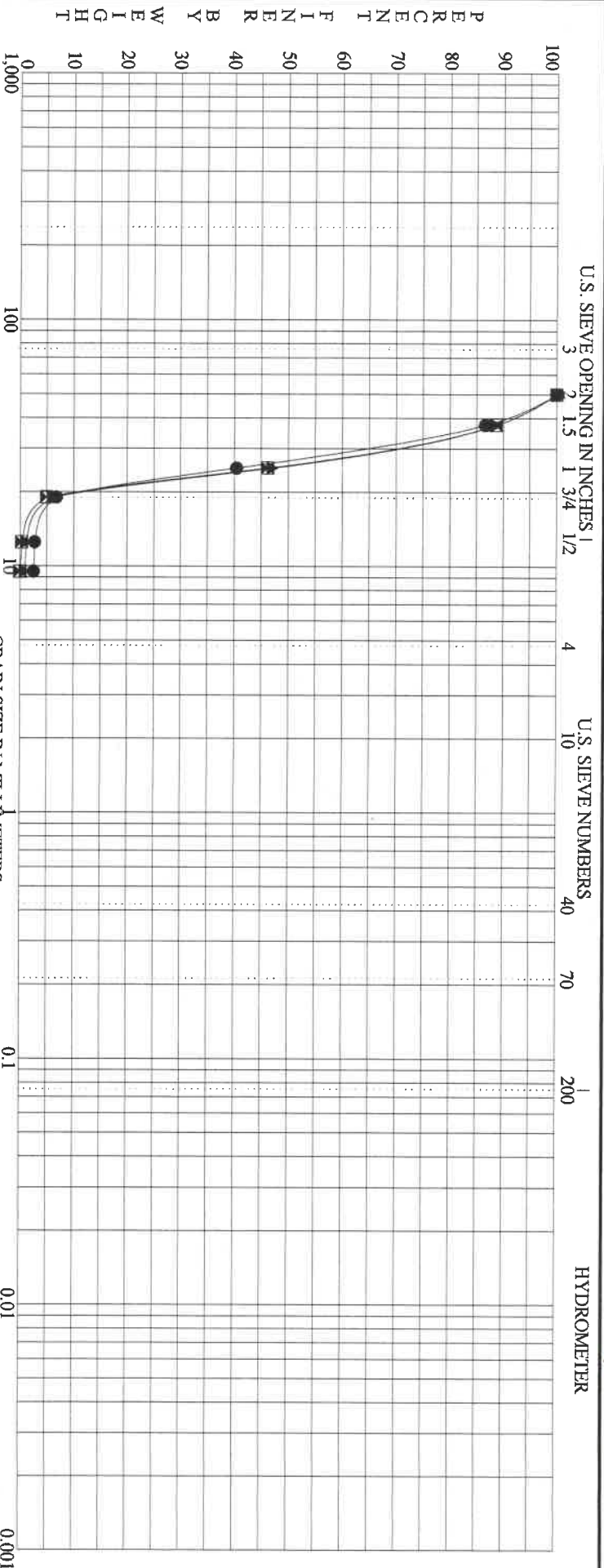
CLIENT REPRESENTATIVE 5/31/13 DATE
James M. Tachibana CSA
 NAME & TITLE

Eric Steen	5/31/2013
AEGL SITE SUPERVISOR	DATE

Appendix F: No. 4 Stone Laboratory Results



GRN-CARB



BOULDERS	COBBLES	GRAVEL		SAND		SILT OR CLAY						
		coarse	fine	coarse	medium	fine	MC%	LL	PL	PI	Cc	Cu
Specimen Identification - Depth		Classification					MC%	LL	PL	PI	Cc	Cu

●	BAG-1 As Received	#4 STONE										0.911	1.522
✕	BAG-1 Before pH4											0.899	1.452
▲	BAG-1 After pH 4	%-CARBONATE RESIDUE CONTENT = 0.43										0.899	1.455

Specimen Identification - Depth													
				D100	D95	D60	D50	D10	%Gravel	%Sand	%Silt	%Clay	
●	BAG-1 As Received			50.0000	44.8941	29.6836	27.1906	19.5012					
✕	BAG-1 Before pH4			50.0000	44.0619	28.5222	25.9216	19.6472					
▲	BAG-1 After pH 4			50.0000	44.0372	28.3585	25.7254	19.4948					

ASTM D422	GRADATION CURVE	PROJECT LOCATION	LORAIN COUNTY II - 2013 GCCS CQA
		JOB NO.	OBERLIN, OHIO
			1173-12-003A, B & C #143908
		DATE	1/30/13

Appendix G: Geosynthetics Test Results

Geomembrane Trial Weld Summary

Geomembrane Repair Summary



Geomembrane Trial Weld Summary

Project Name: Lorain County II Landfill: 2013 GCCS Phase 1, 2, 3 Construction

CQA Monitor: Janet Todia

Project Number: 143908.510

Test No.	Date	Time	Weather (Cloudy/ Sunny)	Amb. Temp. (°F)	Welder I.D.	Machine Number	Temp. Setting/ Speed	Weld Type F/E	PEEL (ppi)						SHEAR (ppi)			Test Result (P/F)	Comments
									Outside Weld			Inside Weld			1	2	3		
									1	2	3	1	2	3					
1	5/20/13	1238	Cloudy	80	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	67	65	66	70	68	68	P	
2	5/21/13	0800	Overcast	70	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	69	77	76	78	78	80	P	
3	5/21/13	1200	Overcast	78	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	73	78	79	72	76	77	P	
4	5/21/13	1600	Sunny	85	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	74	76	69	80	79	78	P	
5	5/22/13	1100	Sunny	88	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	73	69	67	75	73	77	P	
6	5/29/13	0845	Cloudy	77	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	73	70	53	77	74	73	P	
7	5/29/13	1245	Sunny	82	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	71	72	69	76	70	71	P	
8	5/30/13	0800	Sunny	87	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	68	68	68	76	76	78	P	
9	5/30/13	1200	Sunny	88	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	70	71	69	71	76	78	P	
10	5/31/13	0745	Sunny	88	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	64	63	69	73	71	69	P	
11	6/3/13	0730	Overcast	60	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	70	72	70	76	81	76	P	
12	6/12/13	0800	Sunny	80	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	73	76	72	79	80	76	P	
13	6/15/13	1000	Sunny	80	Rico	G53	350°F - 450°F	E	N/A	N/A	N/A	72	75	70	78	79	75	P	



CQA Monitor: Janet Todia

Geomembrane Repair Summary

Project Name: Lorain County II Landfill: 2013 GCCS Phase 1, 2, 3 Construction
 Project Number: 143908.510

CQA Monitor: Janet Todia

Repair Number	Date	Time	Seam/ Panel	Operator/ Machine	Repair Location		Description	Size of Repair	Vacuum Test Date	Vacuum Test Results (P/F)
					North	East				
1	5/20/13	1400	N/A	Rico/G53	N/A	N/A	Bore seal TEW7R2	3' x 3'	5/20/13	P
2	5/21/13	0900	N/A	Rico/G53	N/A	N/A	Bore seal EW111R	3' x 3'	5/21/13	P
3	5/21/13	1100	N/A	Rico/G53	N/A	N/A	Bore seal EW326	3' x 3'	5/21/13	P
4	5/21/13	1600	N/A	Rico/G53	N/A	N/A	Bore seal EW115R2	3' x 3'	5/21/13	P
5	5/22/13	0954	N/A	Rico/G53	N/A	N/A	Bore seal EW114 (original lat and well hit with excavator)	6' x 6'	5/22/13	P
6	5/22/13	1055	N/A	Rico/G53	N/A	N/A	Bore patch on 6" lateral run EW114R to EW107R	6' x 3'	5/22/13	P
7	5/29/13	0924	N/A	Rico/G53	N/A	N/A	Bore seal EW27R	3' x 3'	5/29/13	P
8	5/29/13	1035	N/A	Rico/G53	N/A	N/A	Bore seal EW114R (due to 6" lateral trench)	6' x 6'	5/29/13	P
9	5/29/13	1220	N/A	Rico/G53	N/A	N/A	Bore seal EW135R	3' x 3'	5/29/13	P
10	5/29/13	1420	N/A	Rico/G53	N/A	N/A	Bore seal EW128R2	3' x 3'	5/29/13	P
11	5/29/13	1535	N/A	Rico/G53	N/A	N/A	Bore seal EW13R2	3' x 3'	5/29/13	P
12	5/30/13	0900	N/A	Rico/G53	N/A	N/A	Bore seal EW9R3	3' x 3'	5/30/13	P
13	5/30/13	0954	N/A	Rico/G53	N/A	N/A	Bore seal EW119R	3' x 3'	5/30/13	P

Geomembrane Repair Summary

Project Name: Lorain County II Landfill: 2013 GCCS Phase 1, 2, 3 Construction

CQA Monitor: Janet Todla

Project Number: 143908.510

Repair Number	Date	Time	Seam/ Panel	Operator/ Machine	Repair Location		Description	Size of Repair	Vacuum Test Date	Vacuum Test Results (P/F)
					North	East				
14	5/30/13	1230	N/A	Rico/G53	N/A	N/A	Bore seal EW125R2	3' x 3'	5/30/13	P
15	5/31/13	0900	N/A	Rico/G53	N/A	N/A	Bore seal air/force main isolation valves	6' x 6'	5/31/13	P
16	6/3/13	0845	N/A	Rico/G53	N/A	N/A	Bore seal EW102R	3' x 3'	6/3/13	P
17	6/12/13	1000	N/A	Rico/G53	N/A	N/A	EW227 bore seal repair	3' x 3'	6/12/13	P
18	6/12/13	1130	N/A	Rico/G53	N/A	N/A	Boot repair EW5R2	3' x 3'	6/12/13	P
19	6/18/13	1000	N/A	Rico/G53	N/A	N/A	Bore repair at CS-5 excavation	30' x 30'	6/18/13	P

Appendix H: Air Monitoring Results

HS-18 REV. 06/2006

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County # Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/12/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRAE**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
0800	RW 302R bore	—	—	20.9	0	0	0
0815	"	—	—	20.9	0	0	0
0830	"	—	—	20.9	0	0	0
0845	"	—	—	20.9	0	0	0
0900	trenching 12" @ blind flange	—	—	20.9	0	0	0
0915	"	—	—	20.9	0	0	0
0930	"	—	—	20.9	0	0	0
0945	"	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	"	—	—	20.9	0	0	0
1045	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	RW 302R bore	—	—	20.9	0	0	0
1130	"	—	—	20.9	0	0	0
1145	"	—	—	20.9	0	0	0
1200	trenching 12" @ blind flange	—	—	20.9	0	0	0
1215	"	—	—	20.9	0	0	0
1230	PVT pipe in trench (12")	—	—	20.9	0	0	0
1245	"	—	—	20.9	0	0	0
1300	"	—	—	20.9	0	0	0

HS-18 REV. 06/2006

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todla
(Print and Sign): *Janet A Todla*Date: 1/14/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRAE**H₂ gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0715	Drill RW45R2	—	—	20.9	0	0	0
0730	1)	—	—	20.9	0	0	0
0745	1)	—	—	20.9	0	0	0
0800	1)	—	—	20.9	0	0	0
0815	1)	—	—	20.9	0	0	0
0830	1)	—	—	20.9	0	0	0
0845	1)	—	—	20.9	0	0	0
0900	1)	—	—	20.9	0	0	0
0915	1)	—	—	20.9	0	0	0
1000	1)	—	—	20.9	0	0	0
1015	1)	—	—	20.9	0	0	0
1030	1)	—	—	20.9	0	0	0
1045	1)	—	—	20.9	0	0	0
1100	1)	—	—	20.9	0	0	0
1115	1)	—	—	20.9	0	0	0
1130	1)	—	—	20.9	0	0	0
1145	1)	—	—	20.9	0	0	0
1200	1)	—	—	20.9	0	0	0
1215	1)	—	—	20.9	0	0	0
1230	1)	—	—	20.9	0	0	0
1245	1)	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Remarks:

Monitoring Data

[illegible]

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*

Date: 1/15/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

QRAE

4 gas meter

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
0730	drill EWH46R	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0815	"	—	—	20.9	0	0	0
0830	trench 12" header from tie	—	—	20.9	0	0	0
0845	in point to termination	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0915	"	—	—	20.9	0	0	0
0930	"	—	—	20.9	0	0	0
0945	"	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	"	—	—	20.9	0	0	0
1045	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	"	—	—	20.9	0	0	0
1130	"	—	—	20.9	0	0	0
1145	"	—	—	20.9	0	0	0
1200	"	—	—	20.9	0	0	0
1215	"	—	—	20.9	0	0	0
1230	"	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Remarks: _____

[illegible]

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/16/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*VRae**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
0700	Drill RW 49 R3	—	—	20.9	0	0	0
0715	"	—	—	20.9	0	0	0
0730	"	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0815	trench new lateral 12" header	—	—	20.9	0	0	0
0830	to RW 42 R	—	—	20.9	0	0	0
0845	"	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0915	"	—	—	20.9	0	0	0
0930	"	—	—	20.9	0	0	0
0945	"	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	Drill RW 49 R3	—	—	20.9	0	0	0
1045	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	"	—	—	20.9	0	0	0
1130	"	—	—	20.9	0	0	0
1145	"	—	—	20.9	0	0	0
1200	"	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/16/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*VRe**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
<i>1215</i>	<i>trench lateral for remota</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1230</i>	<i>well head BW42R</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1245</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1330</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1345</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1400</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1430</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1445</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1500</i>	<i>fill in trench for BW42R</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1515</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1530</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1545</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1600</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1630</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1647</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1700</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1715</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1730</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1800</i>	<i>()</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/17/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRAE**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
0730	drill bore BZJ325	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0815	"	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0915	"	—	—	20.9	0	0	0
0930	tranche 12" header past	—	—	20.9	0	0	0
0945	air + force main isolation	—	—	20.9	0	0	0
1000	point	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	"	—	—	20.9	0	0	0
1045	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1230	"	—	—	20.9	0	0	0
1250	"	—	—	20.9	0	0	0
1315	"	—	—	20.9	0	0	0
1330	"	—	—	20.9	0	0	0
1345	"	—	—	20.9	0	0	0
1400	drill bore BZJ325	—	—	20.9	0	0	0
1430	"	—	—	20.9	0	0	0
1500	"	—	—	20.9	0	0	0

HS-18 REV. 06/2006

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todla

(Print and Sign):

Amanda Gullett *Amanda Gullett*

Date: 1/18/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

QRAE

4 gas meter

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
1000	Drill Bore EW315 R	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	"	—	—	20.9	0	0	0
1045	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	"	—	—	20.9	0	0	0
1130	trench RW45R2	—	—	20.9	0	0	0
1200	"	—	—	20.9	0	0	0
1300	"	—	—	20.9	0	0	0
1330	"	—	—	20.9	0	0	0
1345	"	—	—	20.9	0	0	0
1400	"	—	—	20.9	0	0	0
1415	"	—	—	20.9	0	0	0
1430	"	—	—	20.9	0	0	0
1500	"	—	—	20.9	0	0	0
1515	"	—	—	20.9	0	0	0
1530	"	—	—	20.9	0	0	0
1600	"	—	—	20.9	0	0	0
1615	"	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todla

(Print and Sign): Amanda Gullett Amanda GullettDate: 1-19-13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

~~RAE~~

QRAE

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0730	EW308R			20.9	0	0	0
0745	↓						
0800	↓						
0815	EW46R						
0830	EW308R						
0845	↓						
0900	↓						
0915	EW46R						
0930	EW308R						
0945	↓						
1000	↓						
1015	EW46R						
1030	EW308R						
1045	↓						
1100	↓						
1115	EW46R						
1130	EW308R						
1145	↓						
1200	↓						
1215	↓						
1230	↓						

Project No: Phase I 2013

Date: 1-19-13

Model:

QRAE

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

CO

FW 308R

↓

20.9

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2

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/23/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRAE**4 gas meters*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0730	drill bore RW306R	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0815	"	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0915	trench RW313 to RW314R	—	—	20.9	0	0	0
0930	"	—	—	20.9	0	0	0
0945	"	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1030	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	bore RW304R	—	—	20.9	0	0	0
1130	"	—	—	20.9	0	0	0
1400	"	—	—	20.9	0	0	0
1415	"	—	—	20.9	0	0	0
1545	cover trench lateral RW34R to	—	—	20.9	0	0	0
1600	RW313	—	—	20.9	0	0	0
1615	"	—	—	20.9	0	0	0
				20.9	0	0	0

Name of Project/Site: Lorain II 2012 GWS CQA -Phase 1 Project No: 143900
Project/Site Location: Dublin, OH
Employee Performing Air Monitoring (Print and Sign): Bill Fiske Bill Fiske Date: 01/24/13 (Month)

Instrument(s)

Manufacturer: RAE Model: QRAE+ Manufacturer: _____ Model: _____ Manufacturer: _____ Model: _____

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No Remarks: _____

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	Multi-Gas Detection			
		P/FID ≥ 10	Tube ≥ 1	≥ 25	O ₂ $\leq 20\%, \geq 22\%$	%LEL $\geq 5\%$	H ₂ S ≥ 5 ppm	CO ≥ 25 ppm
Action Level:								
7:00	<u>EW-SDR2 +</u>				<u>20.9</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
7:15	<u>HISS</u>							
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Name of Project/Site: Level II 2013 GUS (Q.A. - Phase 1) Project No: 147908
Project/Site Location: Obeslin, OH
Employee Performing Air Monitoring (Print and Sign): Bill Foster [Signature] Date: 01/22/13

Instrument(s)

Manufacturer: RAE Model: QRAE+ Manufacturer: _____ Model: _____
Manufacturer: _____ Model: _____

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:		P/FID ≥ 10	Tube ≥ 1	≥ 25	≤ 20%, ≥ 22%	≥ 5%	≥ 5 ppm	≥ 25 ppm
7:00	<u>EW-314R + EW-46R</u>				<u>20.9</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
7:15	<u>(Lateral)</u>							
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Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *11/25/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRse**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0730	Drill RW305R	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0830	"	—	—	20.9	0	0	0
0845	Trench 12" header	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0945	"	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1015	"	—	—	20.9	0	0	0
1100	"	—	—	20.9	0	0	0
1115	"	—	—	20.9	0	0	0
1200	Set wall RW305R	—	—	20.9	0	0	0
1215	"	—	—	20.9	0	0	0
1230	"	—	—	20.9	0	0	0

Name of Project/Site: 2013 Lorain II - Phase 1 GCW

Project No: 143908

Project/Site Location: Oberlin, OH

Employee Performing Air Monitoring (Print and Sign):

Bryl Fooks

BIN

Date: 02/01/13 (HKL)

Instrument(s)

Manufacturer:

Model:

QRAE+

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:		P/FID ≥ 10	Tube ≥ 1	≥ 25	≤ 20%, ≥ 22%	≥ 5%	≥ 5 ppm	≥ 25 ppm
7:00	12" Header	N/A	N/A	N/A	20.9	0.0	0.0	0.0
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Name of Project/Site: 43908 Lorain II Phase I Project No: 43908
Project/Site Location: 2013 - Lorain II - GCS Phase I/II
Employee Performing Air Monitoring (Print and Sign): Amanda Gullett Amanda Gullett Date: 2-2-13

Instrument(s)

Manufacturer: RAE Model: QRAE+ Manufacturer: _____ Model: _____
Manufacturer: _____ Model: _____

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No Remarks: _____

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (# P/FID ≥ 1)	Ammonia (ppm)	Multi-Gas Detection			
		P/FID ≥ 10	Tube ≥ 1	≥ 25	O ₂ ≤ 20%, ≥ 22%	%LEL ≥ 5%	H ₂ S ≥ 5 ppm	CO ≥ 25 ppm
Action Level:								
7:00	<u>EW-54R2/Lateral EW</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>20.9</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
7:15	<u>EW-49R3, EW-156</u>							
7:30	<u>H-1105, H-175</u>							
7:45								
8:00								
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12:30	<u>Lateral to EW-156</u>							
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Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): Janet A Todia

Date: 2/4/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

QRAE

VE gas meter

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0730	drill RW152R	—	—	20.9	0	0	0
0745	"	—	—	20.9	0	0	0
0800	"	—	—	20.9	0	0	0
0815	"	—	—	20.9	0	0	0
0900	"	—	—	20.9	0	0	0
0915	excavate remote lateral RW49R3	—	—	20.9	0	0	0
0945	* RW152R	—	—	20.9	0	0	0
1000	"	—	—	20.9	0	0	0
1315	"	—	—	20.9	0	0	0
1330	"	—	—	20.9	0	0	0
1345	"	—	—	20.9	0	0	0
1400	"	—	—	20.9	0	0	0
1415	"	—	—	20.9	0	0	0
1430	"	—	—	20.9	0	0	0
1500	"	—	—	20.9	0	0	0
1515	"	—	—	20.9	0	0	0
1530	"	—	—	20.9	0	0	0
1545	"	—	—	20.9	0	0	0
1600	survey w/ wellcut	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *2/5/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QGas**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
0730	excavate lateral RW42R2	—	—	20.9	0	0	0
0745	LI	—	—	20.9	0	0	0
0800	LI	—	—	20.9	0	0	0
0815	LI	—	—	20.9	0	0	0
0900	LI	—	—	20.9	0	0	0
0915	LI	—	—	20.9	0	0	0
1045	LI	—	—	20.9	0	0	0
1100	LI	—	—	20.9	0	0	0
1115	LI	—	—	20.9	0	0	0
1200	LI	—	—	20.9	0	0	0
1345	LI	—	—	20.9	0	0	0
1400	LI	—	—	20.9	0	0	0
1415	LI	—	—	20.9	0	0	0
1500	LI	—	—	20.9	0	0	0
1530	raise wall RW50R2	—	—	20.9	0	0	0
1600	close excavation for RW47R2	—	—	20.9	0	0	0
1615	Waltt will survey	—	—	20.9	0	0	0
1630	tomorrow	—	—	20.9	0	0	0

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todla
(Print and Sign): *Janet A Todla*Date: *2/4/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRA**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
<i>0730</i>	<i>Drill 2W47R2</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0745</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0800</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0815</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0830</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0845</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0900</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0915</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0945</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1000</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1015</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1030</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1045</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1100</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1115</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1245</i>	<i>excavate 315R to 12" header</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1300</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1315</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1330</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1345</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1400</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *2/16/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*QRAE**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
<i>1415</i>	<i>excavate 314R to 12'</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>9</i>	<i>0</i>	<i>0</i>
<i>1430</i>	<i>header</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1445</i>	<i>complete wall 47R2</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1500</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1515</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1530</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1545</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1600</i>	<i>earthwork / cover trenches +</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1615</i>	<i>survey w/wallchart</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1630</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1645</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1700</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1715</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1730</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1745</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>1800</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>

Name of Project/Site:	Wolpin II Phase C 2013	Project No:	
Project/Site Location:	Oberlin, OH		
Employee Performing Air Monitoring (Print and Sign):	Steve A. Doria	Date:	2/17/13

Instrument(s)			
Manufacturer:	Model:	Manufacturer:	Model:
QGas	4 gas meter		

Was instrument(s) calibrated per manufacturer's instructions?	☒ Yes ☐ No	Remarks:	
---	---	----------	--

Monitoring Data								
Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		
Action Level:		P/FID ≥ 10	Benzene Tube ≥ 1	≥ 25	≤ 20%, ≥ 22%	%LEL ≥ 5%	H ₂ S ≥ 5 ppm	CO ≥ 25 ppm
7:00	Well RW 322	—	—	—	20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00	Trench RW 324							
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45	Trench RW 325							
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
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17:15								
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17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

143908

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: ~~James Foster~~ Bill Foster

(Print and Sign):

BIN *[Signature]*

Date:

02/12/13 (Tuesday)

Instrument(s)

Manufacturer:

RAE

Model:

QRAE+

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
700	Jump from EW-54R2 → EW-321 ↓	N/A	N/A	20.9	0.0	0.0	0.0
715	Air + FM from EW-50R → EW-54R2						
730							
745							
800							
815							
830							
845							
900							
915							
930							
945							
1000							
1015							
1030							
1045							
1100							
1115							
1130							
1145							
1200							

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

113908

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: ~~James Smith~~
(Print and Sign):Bill Foster BIN *BF*

Date:

02/12/13 (Tuesday)

Instrument(s)

Manufacturer:

RAE

Model:

QRAE+

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
1215	Jump from EW-5422 → EW-321 +	N/A	N/A	20.9	0.0	0.0	0.0
1230	Air & FM from EW-502 → EW-5422						
1245							
1300							
1315							
1330							
1345							
1400							
1415							
1430							
1445							
1500							
1515							
1530							
1545							
1600							
1615							
1630							
1645							
1700							
1715							

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todla
(Print and Sign): *Janet A Todla*Date: *2/13/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*Rae**QRAE*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
<i>0730</i>	<i>barometric sump in 12"</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>north header</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0745</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0800</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0815</i>	<i>2</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0830</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0845</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0910</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0915</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0930</i>	<i>2</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>0945</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1000</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1015</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1030</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1100</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1115</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1130</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1300</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>315</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1330</i>	<i>1</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
<i>1345</i>	<i>survey w/ 4/4/14-ft on cap area</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia
(Print and Sign): *Janet A Todia*Date: *2/14/13*

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

*Q82e**4 gas meter*Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
<i>0745</i>	<i>tie in RW15R + abandon tw15L</i>	<i>—</i>	<i>—</i>	<i>20.9</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>0800</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0815</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0830</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0845</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0900</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0915</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0930</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>0945</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1000</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1015</i>	<i>tie in to RW63R2 + abandon</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1030</i>	<i>RW63R</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1045</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1330</i>	<i>excavate RW58R2 to RW63R2</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1345</i>	<i>for air + force main run</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1400</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1415</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1430</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1445</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i> </i>	<i> </i>	<i> </i>	<i> </i>
<i>1500</i>	<i>"</i>	<i>—</i>	<i>—</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>

Instructions: Complete this form immediately prior to project start.

Name of Project/Site: Lorain County II Landfill

Project No: Phase I 2013

Project/Site Location: Oberlin, Ohio

Employee Performing Air Monitoring: Janet Todia

(Print and Sign):

Janet A Todia

Date:

2/15/13

Instrument(s)

Manufacturer:

QRA

Model:

Hgas meter

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions?

☒ Yes☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m ³)	Multi-Gas Detection			
				O ₂	%LEL	H ₂ S	CO
0745	trench BW5DR2 to H185 to	—	—	20.9	0	0	0
0800	BW321 4" lateral run	—	—	↓	↓	↓	↓
0815	above grade to restore vac	—	—	↓	↓	↓	↓
0830	to BW5DR2	—	—	↓	↓	↓	↓
0845	"	—	—	↓	↓	↓	↓
0900	"	—	—	↓	↓	↓	↓
0915	"	—	—	↓	↓	↓	↓
0930	"	—	—	↓	↓	↓	↓
0945	"	—	—	↓	↓	↓	↓
1000	"	—	—	↓	↓	↓	↓
1015	"	—	—	↓	↓	↓	↓
1030	"	—	—	↓	↓	↓	↓
1045	"	—	—	↓	↓	↓	↓
1100	"	—	—	↓	↓	↓	↓
1115	"	—	—	↓	↓	↓	↓
1130	"	—	—	↓	↓	↓	↓
1145	"	—	—	↓	↓	↓	↓
1200	"	—	—	↓	↓	↓	↓
1215	"	—	—	↓	↓	↓	↓
1230	"	—	—	↓	↓	↓	↓
1245	"	—	—	↓	↓	↓	↓

Instructions: Complete this form immediately prior to project start.

Time	Location and Activity	P/FID (ppm)	Mini- RAM (mg/m³)	Multi-Gas Detection			
				O2	%LEL	H2S	CO
1300	1248121 to BW 321 from	—	—	20.9	0	0	0
1315	15W50K2	—	—	↓	↓	↓	↓
1330	11	—	—	↓	↓	↓	↓
1345	11	—	—	↓	↓	↓	↓
1400	11	—	—	↓	↓	↓	↓
1415	11	—	—	↓	↓	↓	↓
1430	11	—	—	↓	↓	↓	↓
1445	11	—	—	↓	↓	↓	↓
1500	11	—	—	↓	↓	↓	↓
1515	11	—	—	↓	↓	↓	↓
1530	11	—	—	↓	↓	↓	↓
1545	11	—	—	↓	↓	↓	↓
1600	11	—	—	↓	↓	↓	↓
1615	11	—	—	↓	↓	↓	↓
1630	11	—	—	↓	↓	↓	↓
1645	11	—	—	↓	↓	↓	↓
1700	11	—	—	↓	↓	↓	↓
1715	11	—	—	↓	↓	↓	↓

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Joyes Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/7/13

Instrument(s)

Manufacturer:	Model:	Manufacturer:	Model:	Manufacturer:	Model:
QRAE	4 gas meter				

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
						%LEL	H ₂ S	
Action Level:								
7:00								
7:15								
7:30								
7:45								
8:00								
8:15	Drill RW128R2				20.9%	0	0	0
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
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19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/8/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00								
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00	Still on 51R2				20.9%	0	0	0
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
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18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/9/13

Instrument(s)

Manufacturer:	Model:	Manufacturer:	Model:	Manufacturer:	Model:
AK2e	4 gas meter				

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	excavate trench				20.9	0	0	0
7:15	EW 41R to							
7:30	EW 41R 2							
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30	excavate trench							
11:45	EW 42R to							
12:00	1211 header							
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00	drill EW 54R 2							
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
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16:00								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/13/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
Action Level:						%LEL	H ₂ S	
7:00								
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45	drill RW33R				20.9	0	0	0
9:00	↓							
9:15								
9:30								
9:45	trench RW54R2 to							
10:00	RW51R2							
10:15	tie in RW42R							
10:30	to 12" leader							
10:45	raise best termination							
11:00	header (10")							
11:15	↓							
11:30								
11:45	drill RW41R							
12:00	↓							
12:15								
12:30								
12:45	↓							
13:00	trench toward							
13:15	RW54R2							
13:30	↓							
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30	↓				↓	↓	↓	↓
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain # Phase 3 Project No: _____Project/Site Location: Aberlin, OHEmployee Performing Air Monitoring (Print and Sign): Tony A. Torres Jr. P.E. M.D. Date: 5/14/13

Instrument(s)

Manufacturer: Alcatel Model: 4 gas meter Manufacturer: _____ Model: _____ Manufacturer: _____ Model: _____Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No Remarks: _____

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	<u>2511 RW39R2</u>				<u>20.9%</u>	<u>0</u>	<u>0</u>	<u>0</u>
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15	<u>Uncover all tie</u>							
9:30	<u>in points RW51R2</u>							
9:45	<u>and 54R2</u>							
10:00								
10:15								
10:30								
10:45	<u>2511 RW153R</u>							
11:00								
11:15								
11:30								
11:45								
12:00								
12:15	<u>tie in point</u>							
12:30	<u>RW55R</u>							
12:45								
13:00								
13:15								
13:30	<u>tie in point</u>							
13:45	<u>RW56R2</u>							
14:00								
14:15								
14:30	<u>finish RW153R</u>							
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/15/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was Instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00								
7:15								
7:30								
7:45								
8:00								
8:15	Well RW48R2				20.9	0	0	0
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00	Set well RW32L							
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15	Well RW32L							
17:30								
17:45	Set well RW32L							
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lozan II Phase 3Project No: 143908Project/Site Location: OBARIN, DHEmployee Performing Air Monitoring (Print and Sign): Sam A. Davis

Date:

Manufacturer: DRAC Model: 4 gas meter

Manufacturer:

Model:

Manufacturer:

Model:

Was Instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	drill RW39R2				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00	↓ trench tie in							
9:15	RW153R							
9:30								
9:45								
10:00								
10:15								
10:30								
10:45	↓							
11:00	drill RW46R2							
11:15								
11:30								
11:45								
12:00								
12:15	↓							
12:30	trench tie in RW48R2							
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30	↓							
14:45	trench tie in RW302							
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45	↓				↓	↓	↓	↓
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/17/13

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Instrument(s)

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	fill T5WTR2				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00	trench EW39R2							
9:15	to EW159							
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00	fill EW11R							
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00	tie in T5WTR							
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: <u>LO/air II Phase 3</u>	Project No: <u>143908</u>
Project/Site Location: <u>Oberlin, OH</u>	
Employee Performing Air Monitoring (Print and Sign): <u>James A. Todor</u>	Date: <u>5/18/13</u>

Instrument(s)

Manufacturer: <u>GRAC</u>	Model: <u>4 gas meter</u>	Manufacturer:	Model:	Manufacturer:	Model:
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Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	<u>Drill BW125R2</u>				<u>20.9</u>	<u>0</u>	<u>0</u>	<u>0</u>
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45	<u>trench BW125R2</u>							
11:00	<u>to BW112R to</u>							
11:15	<u>BW113R to BW114R</u>							
11:30	<u>2V - force main</u>							
11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 8/20/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	drill BW11SR2				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45	fill in trench							
10:00	25' 15m 12SR2 to							
10:15	112R to 113R to							
10:30	114R							
10:45								
11:00								
11:15	uncover bore							
11:30	spots 12SR2 +							
11:45	BW111R + 111							
12:00	abandon							
12:15								
12:30								
12:45								
13:00	drill BW11SR2							
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15	hole seal							
15:30	BW11SR2							
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/21/13

Instrument(s)

Manufacturer:

Model:

4 gas meter

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	SW 11 SW 135R				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15	hole seal repair							
8:30	SW 111R + 360000							
8:45	hole seal repair							
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00	hole seal repair							
11:15	TRW TR 2							
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00	hole seal repair							
13:15	SW 326 and							
13:30	TRW TR 2							
13:45								
14:00								
14:15	hole seal repair							
14:30	115R2							
14:45								
15:00								
15:15	franch 4" lateral							
15:30	SW 115R2 + 0							
15:45	CRW 114R + 0							
16:00	SW 1107R							
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/22/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	tranch (finishing)				20.9	0	0	0
7:15	RW114K TO							
7:30	RW107R							
7:45								
8:00								
8:15								
8:30	tie in RW12R2							
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15	tie in RW125R2							
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00	keep seal RW114							
12:15	(sawing while							
12:30	tranching)							
12:45								
13:00								
13:15	tranch RW114R TO							
13:30	RW110R (8")							
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/23/13

Instrument(s)

Manufacturer:	Model:	Manufacturer:	Model:	Manufacturer:	Model:
QRAE	4 gas meter				

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	drill RW153R				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30	tie in 6" lateral							
8:45	RW115R2 to RW114R							
9:00	to RW107R5							
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45	trench RW110R							
12:00	to RW21R							
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30	drill RW13R2							
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site:	Lolain II Phase 3	Project No:	143908
Project/Site Location:	Obecin, OH		
Employee Performing Air Monitoring (Print and Sign):	Tina A. Tedia		Date: 6/29/13

Instrument(s)			
Manufacturer:	Model:	Manufacturer:	Model:
QGas	4 gas meter		
Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No		Remarks:	

Monitoring Data								
Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
Action Level:					%LEL	H ₂ S		
7:00	At 11 PW 9R3				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00	At 11 PW 11K 8"							
9:15	PW 11K							
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15	At 11 PW 11K 9R							
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15	back seal repairs							
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/30/13

Instrument(s)

Manufacturer: Model: Manufacturer: Model: Manufacturer: Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	tie in BW135R				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30	tie in EW128R2							
8:45								
9:00								
9:15								
9:30								
9:45								
10:00	tie in BW119R							
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15	French act. force							
13:30	main BW119R to							
13:45	SR2 isolation							
14:00	Jackie							
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 5/31/13

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
Action Level:						%LEL	H ₂ S	
7:00	Drill BW102R				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45	25 ft from drill contained BW192R							
10:00								
10:15								
10:30								
10:45								
11:00	Drill BW313R							
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15	25 ft from isolation valve bore seal							
15:30								
15:45	repair							
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/13/13

Instrument(s)

Manufacturer: Qgas Model: 4 gas meter Manufacturer: _____ Model: _____ Manufacturer: _____ Model: _____

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
						%LEL	H ₂ S	
Action Level:								
7:00	Drill EW304R				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45	Repair bore seal							
9:00	EW102R							
9:15								
9:30								
9:45								
10:00								
10:15								
10:30	Hand air & sm							
10:45	411 x 8" 5K2 TO							
11:00	93R							
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15	pump installations							
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todla

Date: 6/14/13

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
Action Level:						%LEL	H ₂ S	
7:00	March 2013 / 11				20.9	0	0	0
7:15	RW313R to RW314R							
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00	install pump							
14:15	RW313R2							
14:30								
14:45								
15:00								
15:15								
15:30								
15:45	finish work							
16:00	dress up areas							
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013						Project No: 143908		
Project/Site Location: Lorain II Landfill Oberlin, OH						Date: 01/15/13		
Employee Performing Air Monitoring (Print and Sign): Janet A. Todia <i>Janet A. Todia</i>								
Instrument(s)								
Manufacturer:	Model:	Manufacturer:	Model:	Manufacturer:	Model:			
QRAE	4 gas meter							
Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No						Remarks:		
Monitoring Data								
Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL H ₂ S		CO
Action Level:								
7:00	excavate trench				20.9	0	0	0
7:15	to perforator vac							
7:30	pull 53R to							
7:45	12" test termination							
8:00	clear							
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/14/13

Instrument(s)			
Manufacturer:	Model:	Manufacturer:	Model:
UKA	4 gas meter		

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
Action Level:						%LEL	H ₂ S	
7:00								
7:15								
7:30								
7:45								
8:00								
8:15								
8:30	Activate to ASTOR USE RW157 via RW1582				20.9	0	0	0
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45	excavate air + sample in RW1582 to RW169							
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
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17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todla

Date: 6/7/13

Instrument(s)

Manufacturer: Model: Manufacturer: Model: Manufacturer: Model:

Was Instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	excavate to				20.9	0	0	0
7:15	find air from							
7:30	(a road stake)							
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15	excavate air							
9:30	force main trench							
9:45	Roller to SW 15R							
10:00								
10:15								
10:30								
10:45								
11:00								
11:15	excavate trench							
11:30	for air & force main							
11:45	Roller to SW 15R							
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30	trench air & force							
15:45	main Roller 22.8 to							
16:00	isolation valves							
16:15								
16:30								
16:45								
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/12/13

Instrument(s)			
Manufacturer:	Model:	Manufacturer:	Model:
Q&A	4 gas meter		

Was Instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	excavate bolt				20.9	0	0	0
7:15	seal repair							
7:30	2W22T							
7:45								
8:00								
8:15								
8:30	excavate bolt							
8:45	repair EUBERZ							
9:00								
9:15								
9:30	excavate air force							
9:45	main trench tie							
10:00	in storm EUBERZ TO							
10:15	ROWLER TO the							
10:30	isolation valves							
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/14/13

Instrument(s)

Manufacturer:	Model:	Manufacturer:	Model:	Manufacturer:	Model:
QRA	4 gas meter				

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
						%LEL	H ₂ S	
Action Level:								
7:00	rising air lined				20.9	0	0	0
7:15	filling main							
7:30	RW 228 to							
7:45	below grade							
8:00	point							
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00	excavate CS5							
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
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19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todla

Date: 6/15/13

Instrument(s)

Manufacturer: Model: Manufacturer: Model: Manufacturer: Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	CS-5 deulster				20.9	0	0	0
7:15	install new							
7:30	sump							
7:45	24" connection							
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
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Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/18/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
					%LEL	H ₂ S		
Action Level:								
7:00	evaluate CS214				20.9	0	0	0
7:15	borescope repair							
7:30	CSG & electro							
7:45	coupler repair							
8:00	on north end of							
8:15	fuse							
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
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19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/12/13

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	fuse sample probe on 24" header CSS				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45	switch w/ wellhead							
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30	fuse 6" for horizontal							
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/19/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
						%LEL	H ₂ S	
Action Level:					20.9	0	0	0
7:00	Excavate CS21							
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date:

Instrument(s)
Manufacturer: Model: Manufacturer: Model:
AKA 4 gas meter

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	Excavate CS-21				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15	↓							
10:30	Knock up new							
10:45	replacement							
	CS-21 + install							
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
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13:15								
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19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/21/13

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
					%LEL	H ₂ S		
Action Level:								
7:00	CS-21				20.9	0	0	0
7:15	backfill hook							
7:30	up air & force							
7:45	main to pump							
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15	excavate dirt							
12:30	force main							
12:45	repair to							
13:00	AW39R2							
13:15								
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
15:30								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 4/22/13

Manufacturer:

Model:

Instrument(s)

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	road crossing				20.9	0	0	0
7:15	for air force							
7:30	main repair							
7:45								
8:00								
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
12:45								
13:00	backfill + beams							
13:15	CS-21							
13:30								
13:45								
14:00								
14:15								
14:30								
14:45								
15:00								
15:15								
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18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 10/24/13

Instrument(s)

Manufacturer: Model: Manufacturer: Model: Manufacturer: Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (If P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection		CO
					%LEL	H ₂ S		
Action Level:								
7:00	25' x 50' ca main				20.9	0	0	0
7:15	Repair EW39A2							
7:30	to road xing +							
7:45	road xing to							
8:00	isolation valves							
8:15								
8:30								
8:45								
9:00								
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
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11:45								
12:00								
12:15								
12:30								
12:45								
13:00								
13:15								
13:30								
13:45								
14:00								
14:15	1521 backfill							
14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45								
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18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 6/25/13

Instrument(s)			
Manufacturer: QK2E	Model: 4 gas meter	Manufacturer:	Model:
Manufacturer:	Model:	Manufacturer:	Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00								
7:15								
7:30								
7:45								
8:00	weekly progress meeting							
8:15								
8:30								
8:45								
9:00	excavator collector at north horizontal H14 → H12				20.9	0	0	0
9:15								
9:30								
9:45								
10:00								
10:15								
10:30								
10:45								
11:00								
11:15								
11:30								
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14:30								
14:45								
15:00								
15:15								
15:30								
15:45								
16:00								
16:15								
16:30								
16:45	stop at H13							
17:00								
17:15								
17:30								
17:45								
18:00								
18:15								
18:30								
18:45								
19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 7/11/13

Manufacturer:

Model:

Manufacturer:

Model:

Manufacturer:

Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	north horizontal collector, benching				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
8:15	deep pump RW14822							
8:30								
8:45								
9:00								
9:15								
9:30	deep pump RW1228							
9:45								
10:00								
10:15								
10:30								
10:45	excavate to find air force main tie in RW316							
11:00								
11:15								
11:30								
11:45								
12:00								
12:15								
12:30								
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19:00								
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19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 7/2/13

Instrument(s)

Manufacturer: Model: 4 gas meter Manufacturer: Model:

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	North horizontal collector				20.9	0	0	0
7:15								
7:30								
7:45								
8:00								
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19:00								
19:15								
19:30								

Name of Project/Site: Lorain II Landfill Phase 3 2013

Project No: 143908

Project/Site Location: Lorain II Landfill Oberlin, OH

Employee Performing Air Monitoring (Print and Sign): Janet A. Todia

Date: 7/13/13

Instrument(s)			
Manufacturer:	Model:	Manufacturer:	Model:
QK2C	4 gas meter		

Was instrument(s) calibrated per manufacturer's instructions? ☒ Yes ☐ No

Remarks:

Monitoring Data

Time	Location and Activity	P/FID (ppm)	Benzene (if P/FID ≥ 1)	Ammonia (ppm)	O ₂	Multi-Gas Detection %LEL	H ₂ S	CO
Action Level:								
7:00	110 in north horizontal collector				20.9	0	0	0
7:15								
7:30								
7:45								
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Appendix I: Pipeline Pressure Test Results

2013 GCCS - Phase 1, 2, 3 Construction Certification Report - Pipe Pressure Test Results

Date	HDPE Pipe Description	Length (feet)	Pressure (psi)	Time (hours)	Result (Pass/Fail)	Retest (Yes/No)
1/10/13	6" SDR17	1000	25	4	Pass	No
1/11/13 to 1/12/13	6" SDR17	400	25	20	Pass	No
1/12/13	12" SDR17	95	10	4	Pass	No
1/17/13	12" SDR17	400	10	4	Pass	No
1/19/2013 to 1/21/13	6" SDR17	250	25	35	Pass	No
1/21/13 to 1/22/13	6" SDR17	1500	25	15	Pass	No
2/1/13	12" SDR17	90	10	4	Pass	No
2/2/13 to 2/3/13	4" SDR17	400	30	32	Pass	No
2/5/13	2" SDR9 (air)	1600	100	4	Pass	No
2/5/13	3" SDR11 (force main)	1600	50	4	Pass	No
2/5/13	6" SDR17	200	25	4	Pass	No
2/6/13	6" SDR17	300	25	4	Pass	No
2/7/13 - 2/8/13	6" SDR17	200	25	18	Pass	No
2/7/13 - 2/8/13	6" SDR17	400	25	18	Pass	No
2/9/13 - 2/11/13	6" SDR17	200	25	16.5	Pass	No
2/12/13	3" SDR11 (force main)	110	50	4	Pass	No
2/12/13	2" SDR9 (air)	110	100	4	Pass	No
2/12/13	6" SDR17	20	25	4	Pass	No
2/14/13	6" SDR17	600	25	4	Pass	No
2/14/13	2" SDR9 (air)	196	100	4	Pass	No
2/14/13	2" SDR11 (force main)	196	50	4	Pass	No
2/15/13	6" SDR17	240	25	4	Pass	No
5/8/13	6" SDR17	130	25	4	Pass	No
5/8/13	6" SDR17	310	25	4	Pass	No
5/8/13	6" SDR17	152	25	4	Pass	No
5/22/13	6" SDR17	600	25	4	Pass	No
5/22/13	4" SDR17 (force main)	800	50	4	Pass	No
5/22/13	2" SDR9 (air)	800	100	4	Pass	No
5/23/13 - 5/24/13	8" SDR17 (lateral)	450	25	17.5	Pass	No
6/12/13	2" SDR9 (air)	1000	100	4	Pass	No
6/12/13	4" SDR17 (force main)	1000	50	4	Pass	No
6/12/13	8" SDR17 (dual contained)	1000	25	4	Pass	No
6/14/13	2" SDR9 (air)	200	100	4	Pass	No
6/14/13	4" SDR17 (force main)	200	50	4	Pass	No
6/14/13	8" SDR17 (dual contained)	200	25	4	Pass	No
6/18/13 - 6/19/13	2" SDR9 (air)	900	100	18	Pass	No
6/18/13 - 6/19/13	4" SDR17 (dual contained)	720	30	18	Pass	No