Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: Ripon FF/NN Landfill	**Date of inspection:** 10/13/10
Location and Region: Tn. of Ripon, WI Reg 5	**EPA ID:** WID980610190
Agency, office, or company leading the five-year review: Wisconsin DNR A Edelstein	**Weather/temperature:** Mostly Clear; 50's/60's °F

Remedy Includes: (Check all that apply)

- [x] Landfill cover/containment
- [x] Access controls Fence
- [x] Institutional controls
- [ ] Groundwater pump and treatment
- [ ] Surface water collection and treatment
- [ ] Other Active gas extraction (interim retrofit), extension of municipal water to residents with contaminated private wells
- [ ] Monitored natural attenuation
- [ ] Groundwater containment
- [ ] Vertical barrier walls

Attachments: [ ] Inspection team roster attached [x] Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Jack Wendler (Name) — POTW operator (Title) — 10/13/10 (Date)
   Interviewed [x] at site [ ] at office [ ] by phone Phone no. 920-748-4902
   Problems, suggestions; [ ] Report attached _____

2. **O&M staff** Mike Noel (Name) — Consultant (Title) — 10/13/10 (Date)
   Interviewed [x] at site [ ] at office [ ] by phone Phone no. _____
   Problems, suggestions; [ ] Report attached Took us around site and pointed out features

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency Wisconsin DNR
Contact Gary Edelstein — Engineer — 10/13/10 — 608-267-7563
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached Prepared this report

Agency City of Ripon
Contact Steve Barg — City Administrator — 10/13/10 — 9207484914
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached

Agency
Contact
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached

Agency
Contact
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached

4. **Other interviews** (optional) G Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1.	**O&M Documents**			
	☒ O&M manual	☒ Readily available	G Up to date	G N/A
	G As-built drawings	G Readily available	G Up to date	G N/A
	☒ Maintenance logs	☒ Readily available	G Up to date	G N/A
	Remarks Kept at POTW some document also at City Hall. Current gas system documents at POTW			
2.	**Site-Specific Health and Safety Plan**	☒ Readily available	G Up to date	G N/A
	☒ Contingency plan/emergency response plan	☒ Readily available	G Up to date	G N/A
	Remarks Kept at POTW for gas system			
3.	**O&M and OSHA Training Records**	G Readily available	G Up to date	G N/A
	Remarks			
4.	**Permits and Service Agreements**			
	G Air discharge permit	G Readily available	G Up to date	G N/A
	G Effluent discharge	G Readily available	G Up to date	G N/A
	G Waste disposal, POTW	G Readily available	G Up to date	G N/A
	G Other permits	G Readily available	G Up to date	G N/A
	Remarks			
5.	**Gas Generation Records**	☒ Readily available	G Up to date	G N/A
	Remarks At POTW, faxed to consultant			
6.	**Settlement Monument Records**	G Readily available	G Up to date	☒ N/A
	Remarks			
7.	**Groundwater Monitoring Records**	☒ Readily available	G Up to date	G N/A
	Remarks Kept by consultant			
8.	**Leachate Extraction Records**	G Readily available	G Up to date	☒ N/A
	Remarks			
9.	**Discharge Compliance Records**			
	G Air	G Readily available	G Up to date	☒ N/A
	G Water (effluent)	☒ Readily available	G Up to date	G N/A
	Remarks Condensate hauled to POTW records kept at POTW			
10.	**Daily Access/Security Logs**	☒ Readily available	G Up to date	G N/A
	Remarks Kept at POTW Site inspected every Friday			

IV. O&M COSTS

1. **O&M Organization**

G State in-house G Contractor for State
X PRP in-house G Contractor for PRP
G Federal Facility in-house G Contractor for Federal Facility
G Other_____

2. **O&M Cost Records**

X Readily available G Up to date Steve will send later
G Funding mechanism/agreement in place
Original O&M cost estimate_____ G Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost
From_____ To_____ _____ G Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS G Applicable G N/A

A. Fencing

1. **Fencing damaged** G Location shown on site map X Gates secured G N/A
Remarks Site not fenced on portion of N side of site. Fence that is present in good condition

B. Other Access Restrictions

1. **Signs and other security measures** G Location shown on site map G N/A
Remarks Signs noted. No evidence of trespass or problems

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented G Yes G No G N/A
Site conditions imply ICs not being fully enforced G Yes G No G N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____
Frequency _____
Responsible party/agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.

Reporting is up-to-date G Yes G No G N/A
Reports are verified by the lead agency G Yes G No G N/A

Specific requirements in deed or decision documents have been met G Yes G No G N/A
Violations have been reported G Yes G No G N/A
Other problems or suggestions: G Report attached

2. **Adequacy** G ICs are adequate G ICs are inadequate G N/A
Remarks _____

D. General

1. **Vandalism/trespassing** G Location shown on site map ☒ No vandalism evident
Remarks Although site not fully fenced, no evidence of trespass or problems

2. **Land use changes on site** ☒ N/A None
Remarks _____

3. **Land use changes off site** ☒ N/A
Remarks None recently

VI. GENERAL SITE CONDITIONS

A. Roads G Applicable ☒ N/A No roads, short driveways

1. **Roads damaged** G Location shown on site map G Roads adequate ☒ N/A
Remarks No damage to driveways

B. Other Site Conditions

Remarks_____

_____

_____

_____

_____

_____

VII. LANDFILL COVERS G Applicable G N/A

A. Landfill Surface

1. **Settlement** (Low spots) G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Cracks** G Location shown on site map G Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks_____
   _____

3. **Erosion** G Location shown on site map G Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____
   _____

4. **Holes** G Location shown on site map G Holes not evident
   Areal extent_____ Depth_____
   Remarks_____
   _____

5. **Vegetative Cover** G Grass G Cover properly established G No signs of stress
   G Trees/Shrubs (indicate size and locations on a diagram)
   Remarks_____
   _____

6. **Alternative Cover (armored rock, concrete, etc.)** G N/A
   Remarks_____
   _____

7. **Bulges** G Location shown on site map G Bulges not evident
   Areal extent_____ Height_____
   Remarks_____
   _____

8. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident
- G Wet areas — G Location shown on site map — Areal extent_____
- G Ponding — G Location shown on site map — Areal extent_____
- G Seeps — G Location shown on site map — Areal extent_____
- G Soft subgrade — G Location shown on site map — Areal extent_____

Remarks_____

9. **Slope Instability** G Slides G Location shown on site map ☒ No evidence of slope instability
Areal extent_____
Remarks_____

B. Benches G Applicable ☒ N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** G Location shown on site map ☒ N/A or okay
Remarks_____

2. **Bench Breached** G Location shown on site map ☒ N/A or okay
Remarks_____

3. **Bench Overtopped** G Location shown on site map ☒ N/A or okay
Remarks_____

C. Letdown Channels G Applicable ☒ N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** G Location shown on site map ☒ No evidence of settlement
Areal extent_____ Depth_____
Remarks_____

2. **Material Degradation** G Location shown on site map ☒ No evidence of degradation
Material type_____ Areal extent_____
Remarks_____

3. **Erosion** G Location shown on site map ☒ No evidence of erosion
Areal extent_____ Depth_____
Remarks_____

4. **Undercutting** G Location shown on site map G No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ G No obstructions
G Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
G No evidence of excessive growth
G Vegetation in channels does not obstruct flow
G Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations G Applicable G N/A

1. **Gas Vents** G Active G Passive
G Properly secured/lockedG Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance
G N/A
Remarks_____

2. **Gas Monitoring Probes**
G Properly secured/lockedG Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
G Properly secured/lockedG Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

4. **Leachate Extraction Wells**
G Properly secured/lockedG Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

5. **Settlement Monuments** G Located G Routinely surveyed G N/A
Remarks_____

E. Gas Collection and Treatment ☒ Applicable ☐ N/A

1. **Gas Treatment Facilities**
   ☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
   ☒ Good condition ☐ Needs Maintenance
   Remarks Considered an interim system, no permanent blower house. Gas is vented w/o treatment

2. **Gas Collection Wells, Manifolds and Piping**
   ☒ Good condition ☐ Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   ☒ Good condition ☐ Needs Maintenance ☐ N/A
   Remarks Gas probes

F. Cover Drainage Layer ☐ Applicable ☐ N/A

1. **Outlet Pipes Inspected** ☐ Functioning ☒ N/A
   Remarks_____

2. **Outlet Rock Inspected** ☐ Functioning ☒ N/A
   Remarks_____

G. Detention/Sedimentation Ponds ☐ Applicable ☒ N/A

1. **Siltation** Areal extent_____ Depth_____ ☐ N/A
   ☐ Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   ☐ Erosion not evident
   Remarks_____

3. **Outlet Works** ☐ Functioning ☐ N/A
   Remarks_____

4. **Dam** ☐ Functioning ☐ N/A
   Remarks_____

H. Retaining Walls G Applicable G N/A

1. **Deformations** G Location shown on site map G Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** G Location shown on site map G Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge G Applicable G N/A

1. **Siltation** G Location shown on site map G Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** G Location shown on site map G N/A
   G Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** G Location shown on site map G Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** G Functioning G N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS G Applicable G N/A

1. **Settlement** G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   G Performance not monitored
   Frequency_____ G Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES G Applicable ☒ N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines G Applicable G N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
   G Good condition G All required wells properly operating G Needs Maintenance G N/A
   Remarks_____

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition G Needs Maintenance
   Remarks_____

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks_____

B. Surface Water Collection Structures, Pumps, and Pipelines G Applicable ☒ N/A

1. **Collection Structures, Pumps, and Electrical**
   G Good condition G Needs Maintenance
   Remarks_____

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   G Good condition G Needs Maintenance
   Remarks_____

3. **Spare Parts and Equipment**
   G Readily available G Good condition G Requires upgrade G Needs to be provided
   Remarks_____

C. Treatment System G Applicable ☒ N/A

1. **Treatment Train** (Check components that apply)
   - G Metals removal G Oil/water separation G Bioremediation
   - G Air stripping G Carbon adsorbers
   - G Filters_____
   - G Additive (*e.g.*, chelation agent, flocculent)_____
   - G Others_____
   - G Good condition G Needs Maintenance
   - G Sampling ports properly marked and functional
   - G Sampling/maintenance log displayed and up to date
   - G Equipment properly identified
   - G Quantity of groundwater treated annually_____
   - G Quantity of surface water treated annually_____

   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   G N/A G Good condition G Needs Maintenance

   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   G N/A G Good condition G Proper secondary containment G Needs Maintenance

   Remarks_____

4. **Discharge Structure and Appurtenances**
   G N/A G Good condition G Needs Maintenance

   Remarks_____

5. **Treatment Building(s)**
   G N/A G Good condition (esp. roof and doorways) G Needs repair
   G Chemicals and equipment properly stored

   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   G Properly secured/lockedG Functioning G Routinely sampled G Good condition
   G All required wells located G Needs Maintenance G N/A

   Remarks_____

D. Monitoring Data

1. Monitoring Data
   G Is routinely submitted on time G Is of acceptable quality

2. Monitoring data suggests:
   G Groundwater plume is effectively contained G Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition
G All required wells located G Needs Maintenance G N/A
Remarks_____

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

F/R 10/13/10 Steve Barg
Mike Noel @ office

Ripon Commonwealth
Ian Stepleton 920-748-3017
Kathy or Karen - for running add

Setup conf. call for MNA data
w/ Jennie and Terry and Mike Noel
Bbmt parameters - some field parameters
too - Nitrate & Sulfate

Setup for Thurs or Friday

Deed instrument for site - I suggest they mention it in IC Plan if we require it

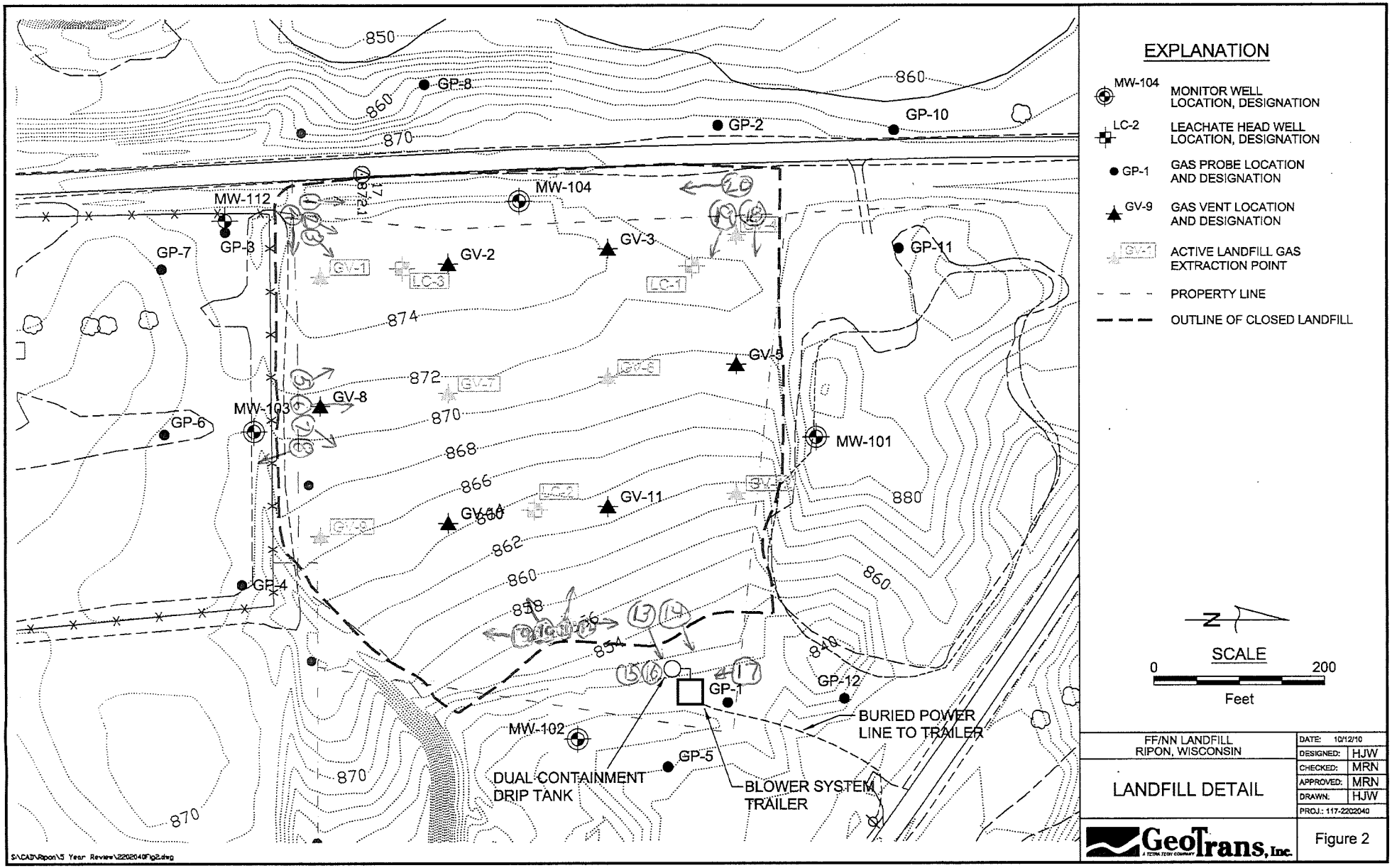
* Follow up for O&M plan for gas system and Cap and also OSHA training records

IC Plan (Asphalt Plant/Quarry to NE - pumping changed plume direction - what letter did Terry send

Osk about tri ordinance for wells and what Jennie did

EPA ID # ✓ Weather ✓
Names of gas features for photos ✓
Refine photo Map

October 13, 2010
Inspection Photo Key



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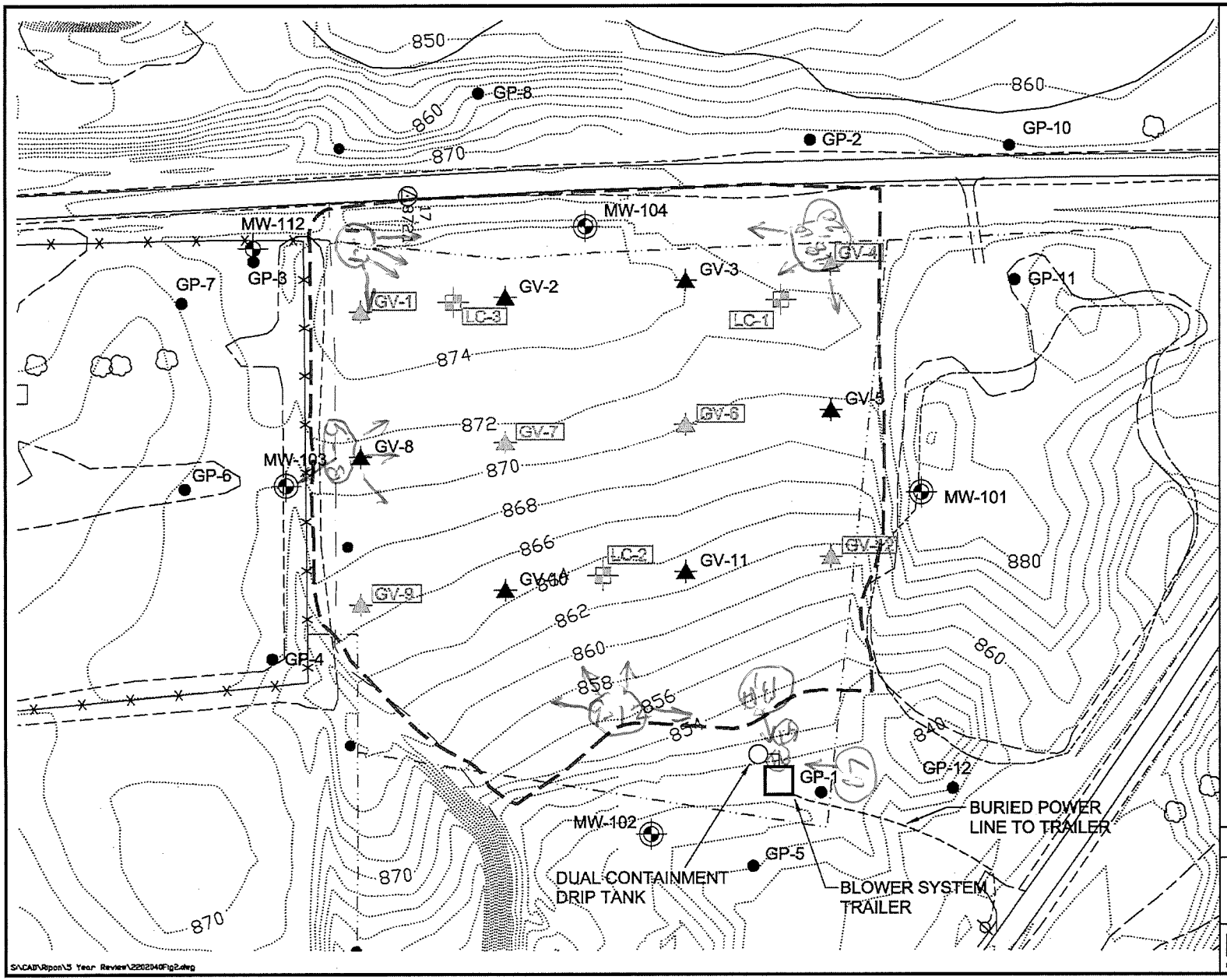
FF/NN LANDFILL RIPON, WISCONSIN	DATE: 10/12/10 DESIGNED: HJW CHECKED: MRN APPROVED: MRN DRAWN: HJW PROJ.: 117-2202040
LANDFILL DETAIL	
GeoTrans, Inc. A TETRA TECH COMPANY	Figure 2



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EXPLANATION

- MW-104 — MONITOR WELL LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- GP-1 — GAS PROBE LOCATION AND DESIGNATION
- GV-9 — GAS VENT LOCATION AND DESIGNATION
- GV-1 — ACTIVE LANDFILL GAS EXTRACTION POINT
- PROPERTY LINE
- OUTLINE OF CLOSED LANDFILL

N

SCALE

0 200

Feet

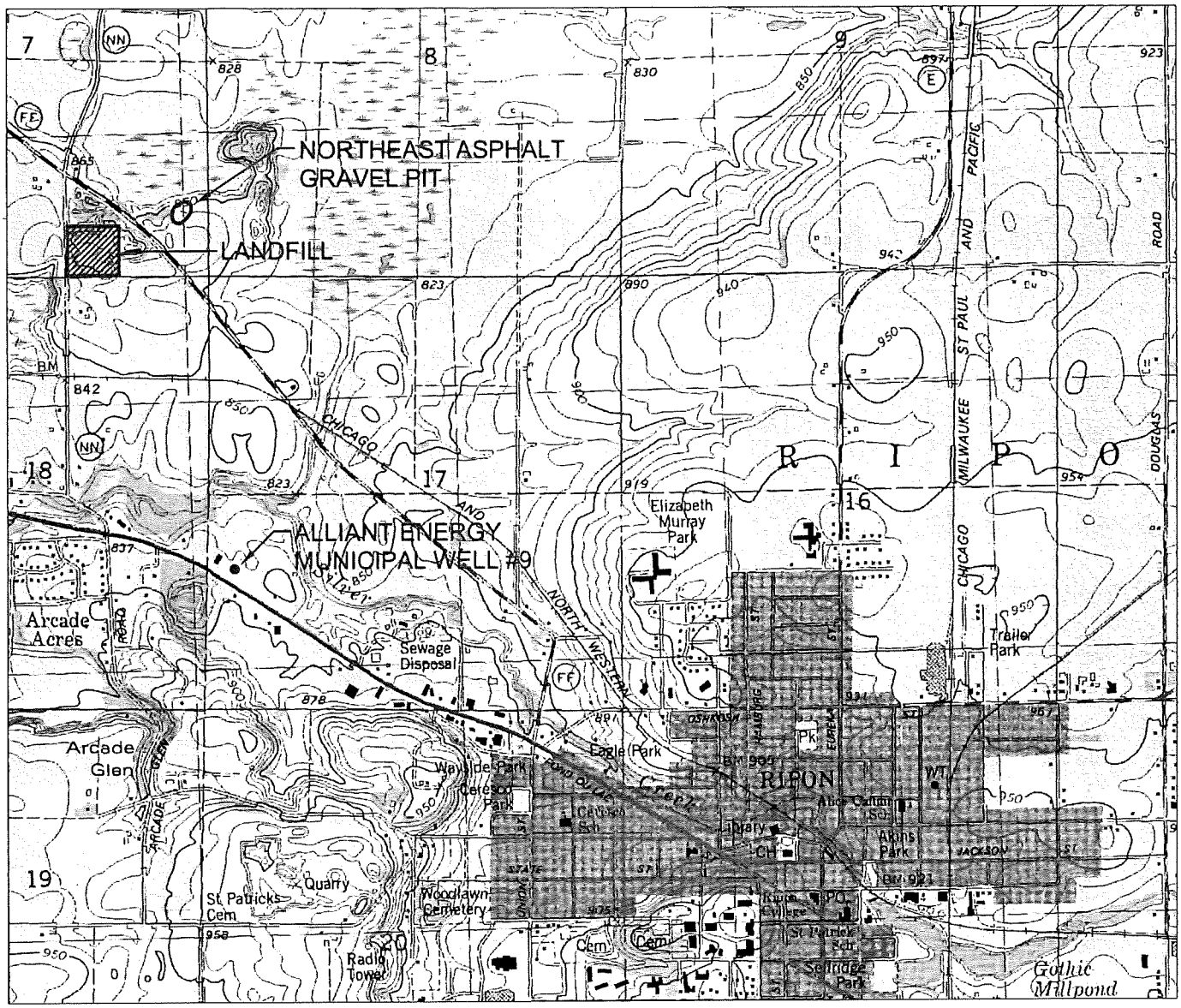
FF/NN LANDFILL
RIPON, WISCONSIN

LANDFILL DETAIL

DATE:	10/12/10
DESIGNED:	HJW
CHECKED:	MRN
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202040

GeoTrans, Inc.

Figure 2



QUADRANGLE LOCATION

SCALE

0 6000

Feet

N

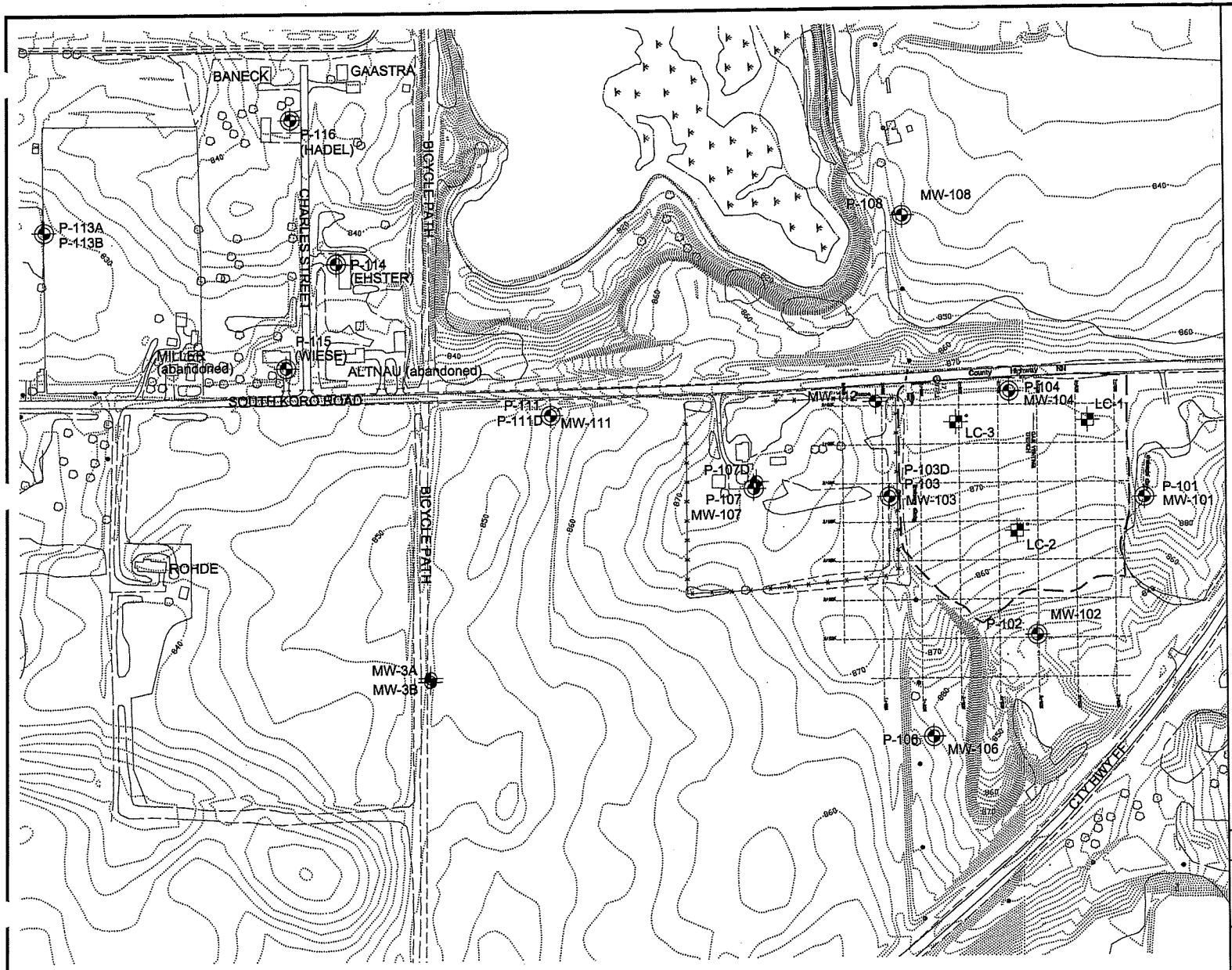
FF/NN LANDFILL RIPON, WISCONSIN	DATE: 6/20/07
	DESIGNED: HJW
SITE LOCATION AND LOCAL TOPOGRAPHY	CHECKED: MRN
	APPROVED: MRN
	DRAWN: HJW
	PROJ.: 1011.005
GeoTrans, Inc. A TETRA TECH COMPANY	Figure 1

S:\CAD\Ripon\1011.005\6-20-07\1011005Fig1.dwg 06/20/2007 11:39:14

Follow STH 49
CTH FF = Union St.

Right turn

Koro Rd is too far



EXPLANATION

- P-104 / MW-104 — MONITOR WELL, PIEZOMETER LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- — — — OUTLINE OF CLOSED LANDFILL

N

SCALE

0 500

Feet

BASEMAP FROM FOND DU LAC COUNTY PLANNING DIVISION, SPRING 2000.

FF/NN LANDFILL RIPON, WISCONSIN	DATE: 6/20/07
	DESIGNED: MRN
	CHECKED: MRN
GROUNDWATER MONITORING WELL LOCATIONS	APPROVED: MRN
	DRAWN: HJW
	PROJ.: 1011.005
GeoTrans, Inc. A TETRA TECH COMPANY	Figure 3

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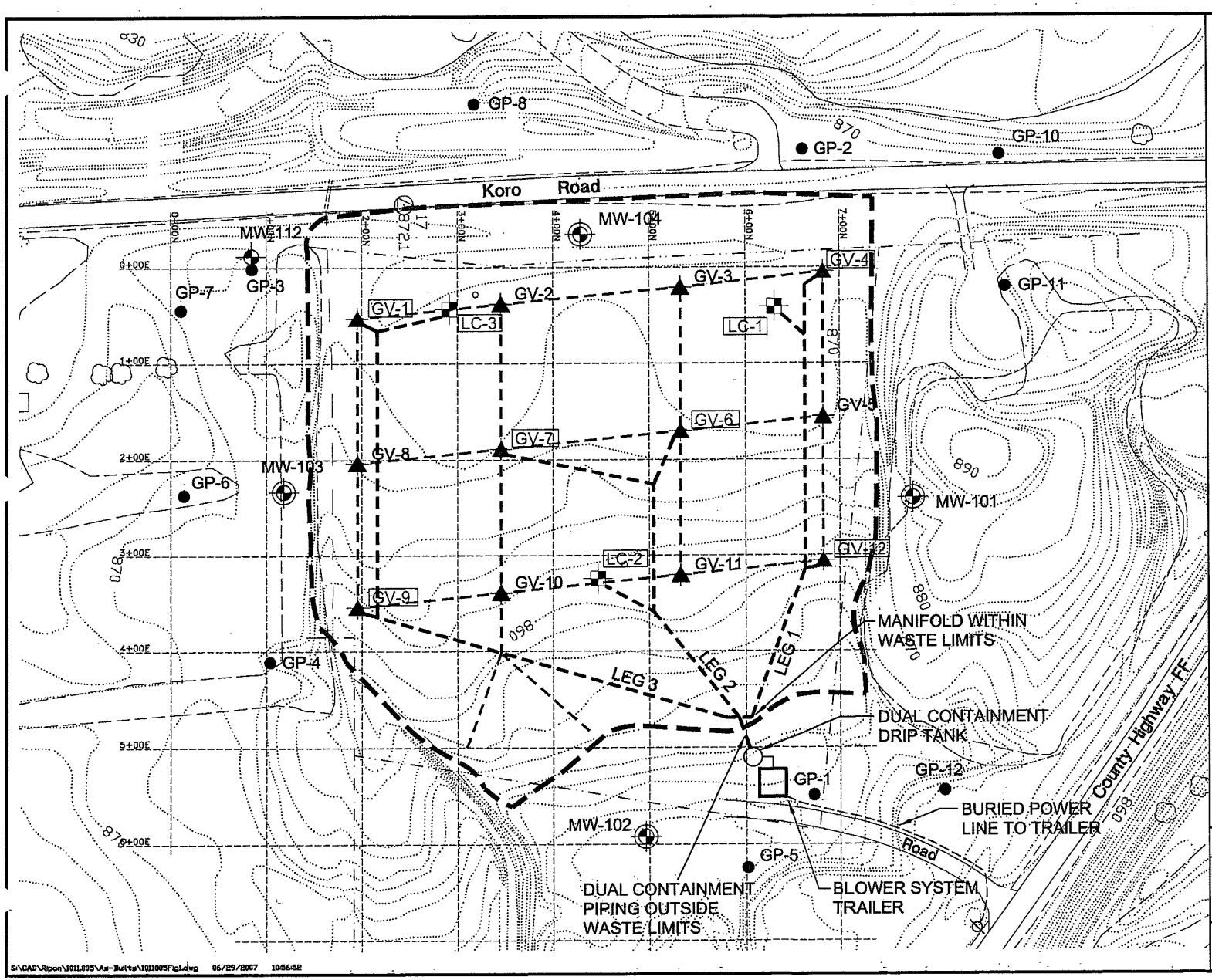

EXPLANATION

- MW-104 — MONITOR WELL LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- PROPERTY LINE
- OUTLINE OF CLOSED LANDFILL
- GP-1 — GAS PROBE LOCATION AND DESIGNATION
- GV-9 — GAS VENT LOCATION AND DESIGNATION
- 4" DIAMETER BURIED PASSIVE GAS COLLECTION SYSTEM PIPING
- 3-INCH DIAMETER BURIED GAS CONVEYANCE PIPING
- GV-1 — ACTIVE LANDFILL GAS EXTRACTION POINT

NOTES:

1. CONTOURS ON LANDFILL DO NOT REFLECT CURRENT TOPOGRAPHY.
2. 3" BURIED CONVEYANCE PIPING ROUTE FOLLOWS NATURAL SLOPE DOWNWARDS TO EQUIPMENT TRAILER TO DRAIN PROPERLY.

N

SCALE

0 200

Feet

FF/NN LANDFILL RIPON, WISCONSIN	DATE: 6/29/07
	DESIGNED: DLM
	CHECKED: DLM
ACTIVE LANDFILL GAS EXTRACTION SYSTEM LAYOUT AND GAS MONITORING LOCATIONS	APPROVED: DLM
	DRAWN: HJW
	PROJ.: 1011.005

GeoTrans, Inc. A TETRA TECH COMPANY

Figure 2

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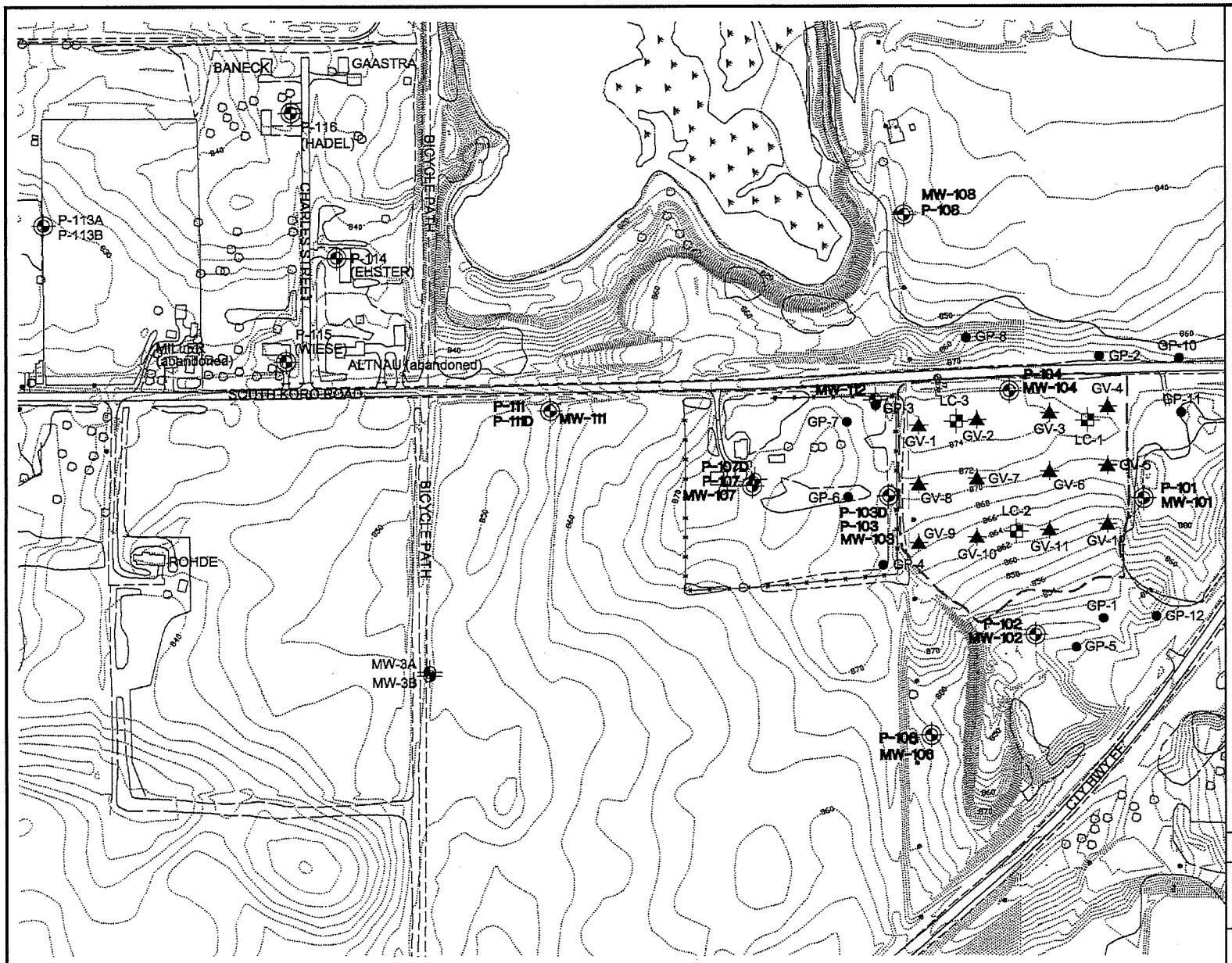

EXPLANATION

- P-104 / MW-104 — MONITOR WELL, PIEZOMETER LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- OUTLINE OF CLOSED LANDFILL
- GP-1 — GAS PROBE LOCATION AND DESIGNATION
- GV-1 — GAS VENT LOCATION AND DESIGNATION

N

SCALE

0 500

Feet

FF/NN LANDFILL RIPON, WISCONSIN	DATE: 10/12/10
	DESIGNED: HJW
	CHECKED: MRN
SITE LAYOUT	APPROVED: MRN
	DRAWN: HJW
	PROJ.: 117-2202040
GeoTrans, Inc. A TETRA TECH COMPANY	Figure 1

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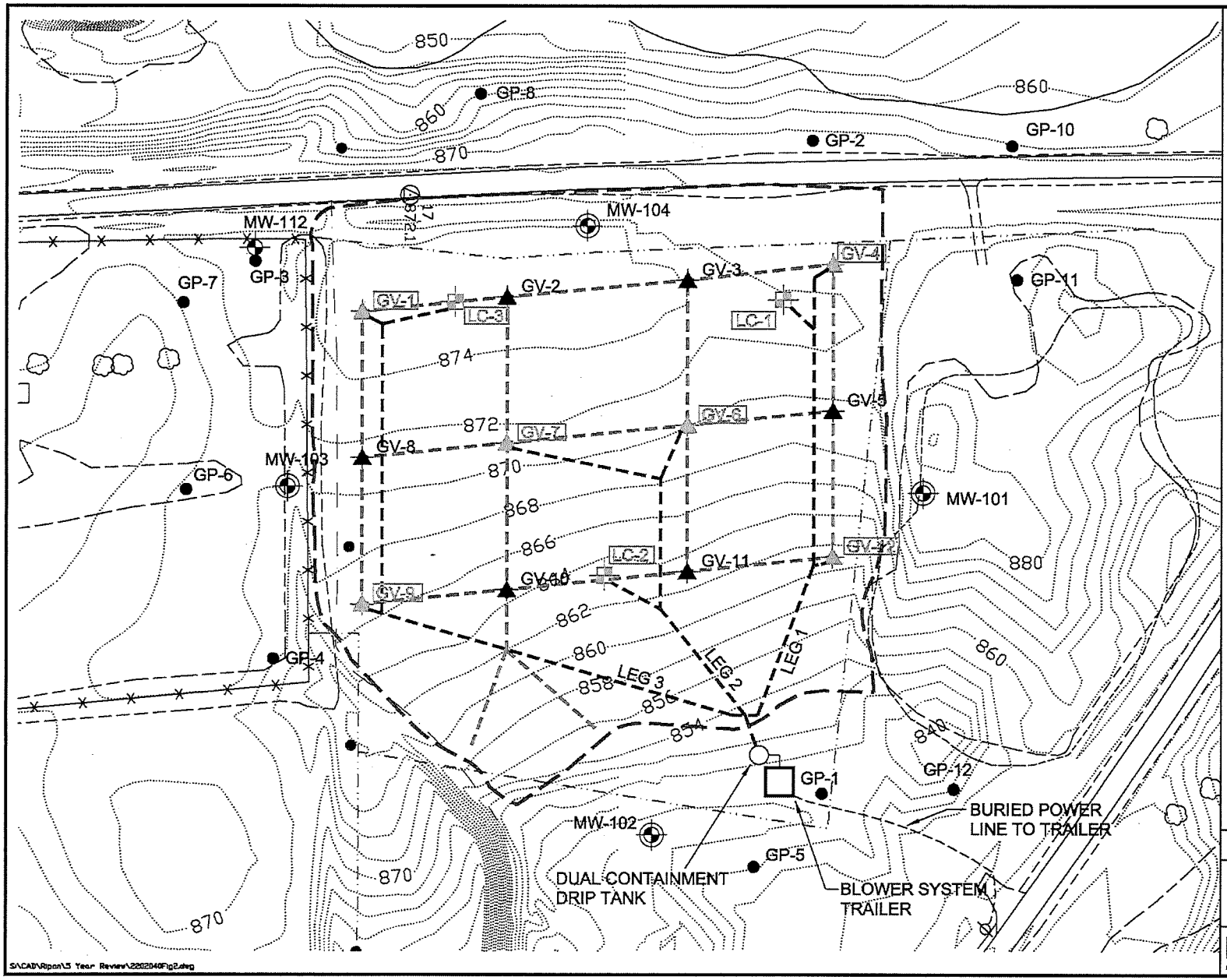

EXPLANATION

- MW-104 — MONITOR WELL LOCATION, DESIGNATION
- LC-2 — LEACHATE HEAD WELL LOCATION, DESIGNATION
- GP-1 — GAS PROBE LOCATION AND DESIGNATION
- GV-9 — GAS VENT LOCATION AND DESIGNATION
- 4" DIAMETER BURIED PASSIVE GAS COLLECTION SYSTEM PIPING
- 3" DIAMETER BURIED GAS CONVEYANCE PIPING
- GV-1 — ACTIVE LANDFILL GAS EXTRACTION POINT
- PROPERTY LINE
- OUTLINE OF CLOSED LANDFILL

N

SCALE

0 200

Feet

FF/NN LANDFILL
RIPON, WISCONSIN

LANDFILL DETAIL

DATE:	10/12/10
DESIGNED:	HJW
CHECKED:	MRN
APPROVED:	MRN
DRAWN:	HJW
PROJ.:	117-2202040

GeoTrans, Inc.

Figure 2

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