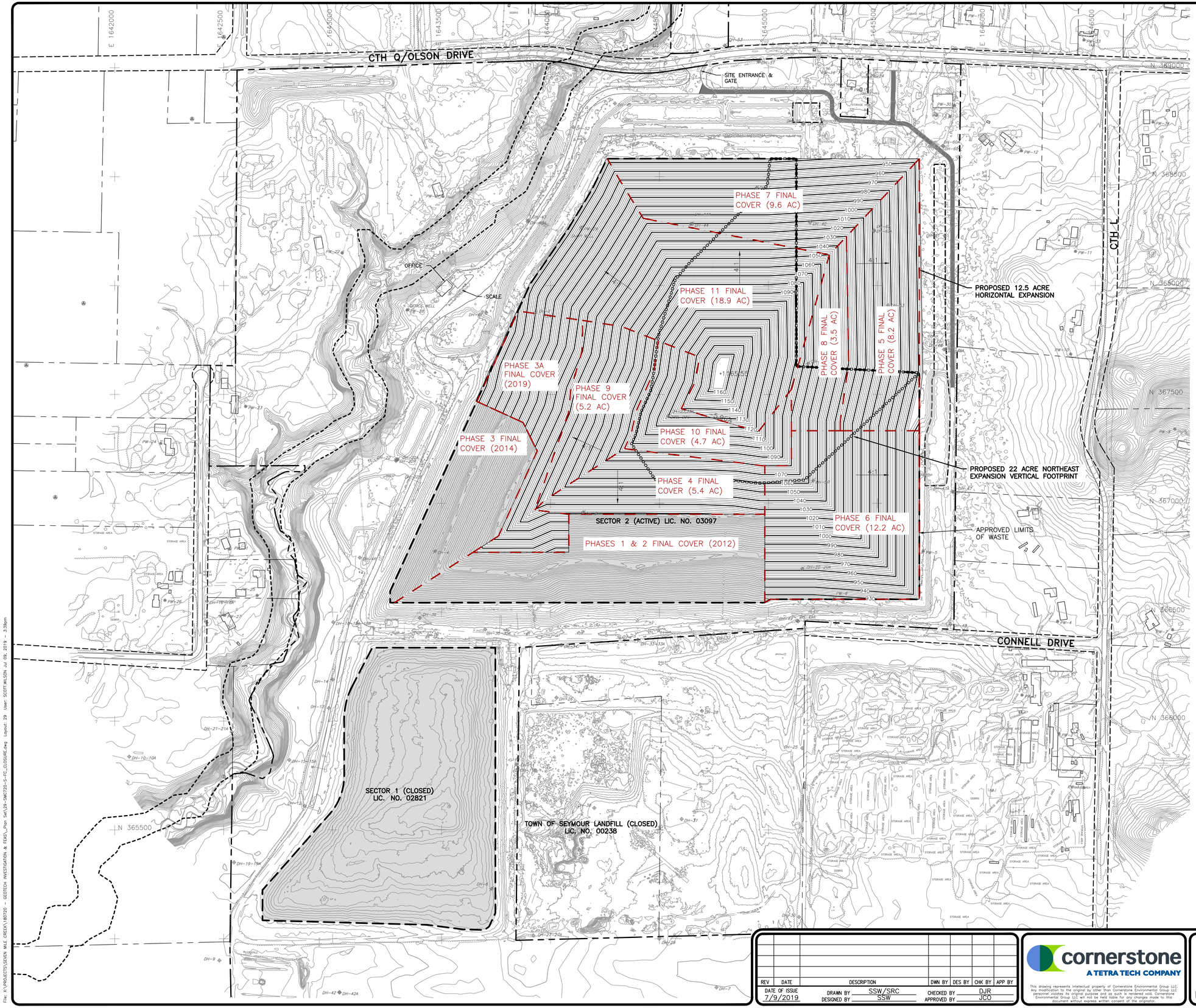

LEGEND

- PROPERTY BOUNDARY
- ROAD RIGHT-OF-WAY
- PERMITTED SOLID WASTE BOUNDARY
- PROPOSED FINAL COVER DELINEATION
- FINAL COVER AREA
- 1030 PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- 1030 EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING FENCE
- DH-33 EXISTING GROUNDWATER MONITORING WELL
- PW-8 EXISTING PRIVATE WELL
- GP-13 EXISTING GAS PROBE
- B-68 SOIL BORING LOCATION
- DH-44 ABANDONED MONITORING WELL
- PW-5 ABANDONED PRIVATE WELL
- GP-3 ABANDONED GAS PROBE
- PROPOSED NORTHEAST EXPANSION HORIZONTAL FOOTPRINT
- PROPOSED NORTHEAST EXPANSION VERTICAL FOOTPRINT
- PROPOSED STORM WATER BASIN
- PROPOSED ROAD

NOTES

1. DRONE SURVEY PERFORMED BY CQM ON APRIL 9, 2019 AND SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY SRMC ON APRIL 6, 2017.
2. PROPERTY BOUNDARIES AND ROAD RIGHT-OF-WAYS ARE FROM DRAWINGS CREATED BY AYRES ASSOCIATES WITH SUPPLEMENTAL DATA FROM EAU CLAIRE COUNTY'S GIS DEPARTMENT. CTH Q/OLSON ROAD OVER SEVEN MILE CREEK WAS REDESIGNED AND REBUILT IN LATE 2018. THE ROAD WAS STRAIGHTENED AND RAISED. UPDATES TO THE ROAD CONFIGURATION ON DRAWINGS WILL BE PROVIDED ONCE ADDITIONAL SURVEY INFORMATION AND/OR AERIAL PHOTOGRAPHY IS PROVIDED.
3. FINAL COVER CLOSURE SEQUENCING IS PRELIMINARY AND WILL BE FURTHER DEFINED AS PART OF PLAN OF OPERATION.

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0 200 400
SCALE IN FEET

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 7/9/2019
DRAWN BY SSW/SRC
DESIGNED BY SSW
CHECKED BY DJR
APPROVED BY JCO

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ADVANCED DISPOSAL
SEVEN MILE CREEK LANDFILL
EAU CLAIRE, WISCONSIN
FEASIBILITY REPORT
SECTOR 2-NORTHEAST EXPANSION
PROPOSED FINAL COVER WITH CLOSURE SEQUENCE

SHEET NO. 29
PROJECT NO. 180720

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SECTOR 2 LANDFILL

GROUNDWATER WELLS

WELL ID			FREQUENCY	PARAMETERS	
DH-4R	DH-36	DH-47	Semiannual (April, October)	Field Temperature	
DH-18A	DH-38	DH-47A		Field Conductivity	
DH-18B	DH-39	DH-48		Field pH	Odor
DH-22A	DH-39A	DH-49		Groundwater Elevation	Color
DH-22B	DH-40*	DH-49A		Chloride	Turbidity
DH-32	DH-41	DH-52		Hardness, Total , Dissolved	
DH-33	DH-43	DH-60		Alkalinity, Total, Dissolved	
DH-33A	DH-43A	DH-60A	Annual (April)	VOCs (8260 or 8021)	
DH-34	DH-45	DH-61			
DH-35A	DH-46A				
DH-62*	DH-62A*	DH-63*	Semiannual	Groundwater Elevation (until abandoned)	
(Subtitle D Wells)			Semiannual (April, October)	Field Temperature	Turbidity
DH-18				Field Conductivity	Hardness, Total, Dissolved
DH-22R				Field pH	Alkalinity, Total, Dissolved
DH-35				Groundwater Elevation	Chloride
DH-46				Odor	
Note: * denotes well is to be abandoned				Color	VOCs (8260 or 8021)

PRIVATE WELLS

WELL ID	FREQUENCY	PARAMETERS
Advanced Office Well (PW-28) Advanced Shop Well (PW-30) Thompson Dahlby Residence (PW-2) Lee Residence (PW-26)	Semiannual (April, October)	Field Temperature Field Conductivity Field pH Alkalinity, Total (unfiltered) Hardness, Total (unfiltered) Chloride, Total VOC (SWDA method 524.2)
Up to 8 Additional Wells per Local Agreement and designated by SMCL	Annual (October)	VOC (EPA 524.2 extended list)

LEACHATE

MONITORING POINT			FREQUENCY	PARAMETERS	
Sector 2 Leachate Tank (DNR Point ID 425)			Monthly (reported semiannually)	Leachate Volume Pumped/Removed (in 1000s of gallons)	
			Semiannual (April and October)	Odor, Color, Turbidity	
				Field Conductivity	
				Field pH	Total Alkalinity
				BOD5	Total Hardness
				Total Sodium	Total Ammonia Nitrogen
				Total Kjeldahl Nitrogen	Total Iron
				Total Chloride	Total Lead
				Total Mercury	Total Manganese
				Total Cadmium	Total Sulfate
				VOCs (8260 or 8021)	Total Suspended Solids
				PCBs (See 40 CFR Part 761.358)	
			Annual (April)	SVOCs (See NR 507, Appendix IV)	
VLHW-1A	LHW-7A		Monthly (reported semiannually)	Leachate Head Elevation (feet MSL)	
VLHW-2A	LHW-7B			Leachate Depth (in feet)	
VLHW-3A	LHW-8				
LHW-4A	LHW-9				
LHW-4B	LHW-10A				
LHW-5A	LWH-10B				
LHW-5B	LHW-11				
LHW-6A	LHW-12				
LHW-6B	LHW-13A				
	LHW-13B				
Any others installed.					

LYSIMETERS

MONITORING POINT	FREQUENCY	PARAMETERS	
L-1A	Monthly (reported semiannually)	Lysimeter Discharge (gallons)	
L-2		Depth to Liquid	
L-3	Semiannual (April, October)	Field Conductivity	Total Kjeldahl Nitrogen
L-4		Field pH	Total Sulfate
		Total Alkalinity	Elevation
		Total Hardness	Odor
		Total Sodium	Color
		Total Chloride	Turbidity
	Annual (April)	VOCs (8260 or 8021)	

GAS SYSTEM

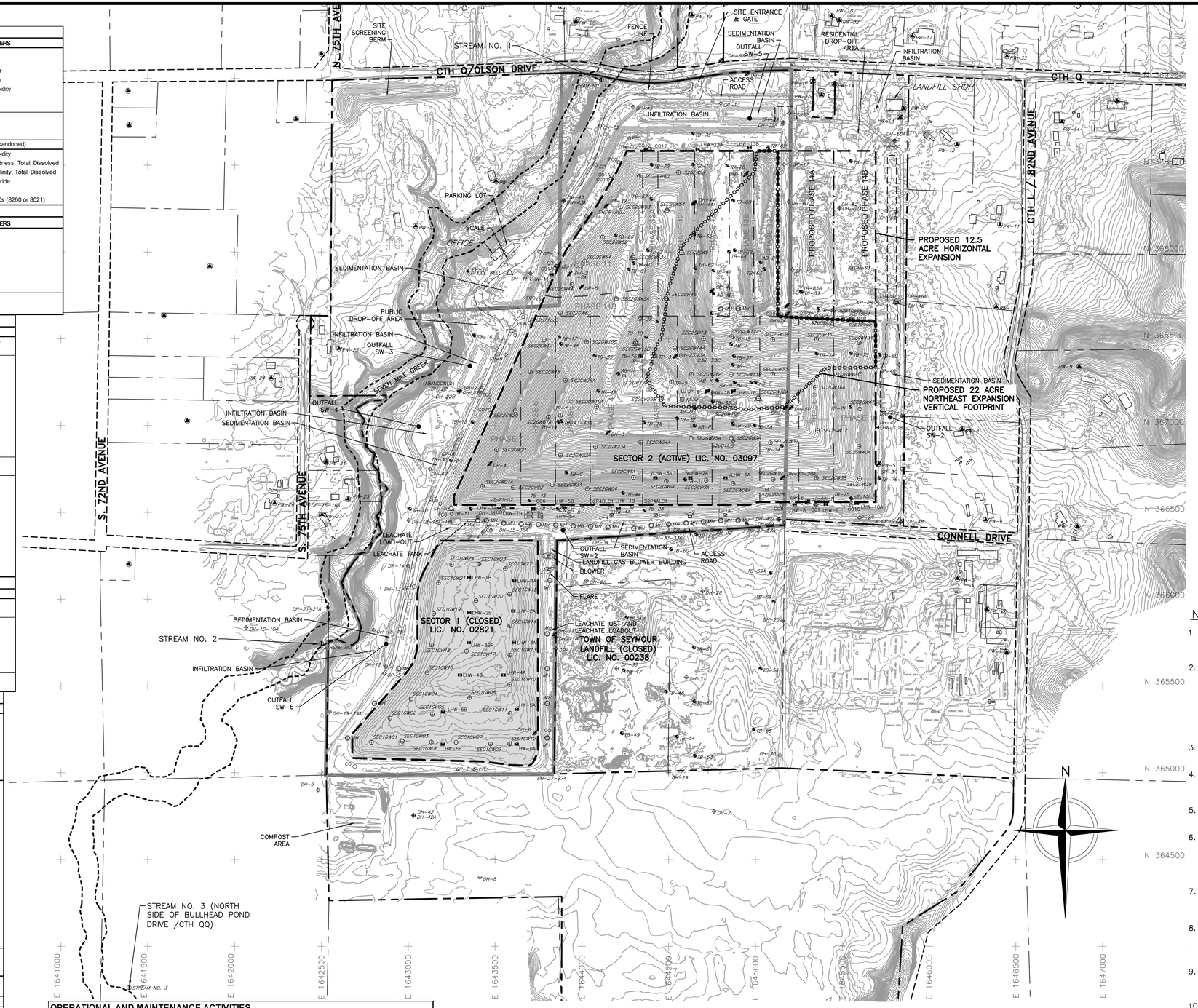
MONITORING POINT			FREQUENCY	PARAMETERS
Gas Probes				
GP-1	GP-6	GP-11	Quarterly (January, April, July, October)	Ground Conditions
GP-2R	GP-7	GP-12		Ambient Air Temperature
GP-3R	GP-8	GP-13		Methane Gas (volume, percent)
GP-4R	GP-9	GP-14		Oxygen Gas (volume, percent)
GP-5R	GP-10	GP-15		Barometric Pressure
And any other probes installed as needed.				Barometric Pressure Trend
Gas Wells				
SEC2GW01A	SEC2GW20	SEC2GW39	Monthly (submitted semiannually)	Wellhead pressure (inches)
SEC2GW02	SEC2GW21	SC2GW40A		Gas Flow Rate (cfm)
SEC2GW3A	SC2GW22A	SEC2GW41		Valve Opening (% open)
SEC2GW04	SC2GW23A	SEC2GW42		Gas Temperature (F)
SEC2GW5A	SE2GW24A	SC2GW43A		Methane (volume %)
SEC2GW6A	SE2GW25A	SEC2GW44		Oxygen (volume %)
SEC2GW7A	SC2GW26A	SEC2GW45A		Carbon dioxide (volume %)
SEC2GW8A	SC2GW27A	SEC2GW46		Balance Gas (volume %)
SEC2GW9A	SC2GW28A	SEC2GW51		
SC2GW10B	SC2GW29B	SEC2GW52		
SC2GW11B	SE2GW30	SE2GW53		
S2GEW12A	SE2GW31	SE2GW54		
SEC2GW13	SE2GW32A	SE2GW59		
SC2GW14A	SE2GW33	SE2GW60		
SC2GW15B	SE2GW34	SC2GW61A		
SC2GW16B	SE2GW35	SC2GW62A		
SEC2GW17	SC2GW36A	SE2GW63		
SEC2GW18	SE2GW37	SE2GW64	Annual (October)	Leachate depth
SEC2GW19A	SE2GW38			Leachate head elevation
And any other wells installed as needed.				
Misc. Gas Monitoring				
Flare (DNR POINT ID 854)			Semi-monthly	Gas Flow Rate (cfm)
Blower Inlet (DNR POINT ID 850)			Semi-monthly	Header Pressure (inches)
Blower Outlet (DNR POINT ID 852)			Semi-monthly	Gas Volume Extracted (total monthly volume in 1000 cu. ft./month)
				Gas temperature (F)
				Header Pressure (inches)
				Gas Flow Rate (cfm)
				Carbon dioxide (volume %)
				Methane (volume %)
				Oxygen Gas (volume %)
Note: data submited semiannually				Balance Gas (volume %)

SURFACE WATER

MONITORING POINT	FREQUENCY	PARAMETERS	
Stream No. 1 (upstream)	Semiannual (April, October)	Field Temperature	Total Alkalinity
Stream No. 2 (mid-upstream)		Field Conductivity	Total Chloride
Stream No. 3 (downstream)		Field pH	Total Hardness
		Water Elevation	Nitrate (NO3 -N)
Note: Surface water elevation not required at Stream No. 2.		Odor	Total Phosphorus
		Color	Total Iron
		Turbidity	Dissolved Oxygen

OPERATIONAL AND MAINTENANCE ACTIVITIES

ITEM	FREQUENCY	DESCRIPTION/LOCATION
Land Surface Care	Annually	Inspect Surface Water Management System (per NR 216.28), Final Cover Integrity, Slopes, Entrance Roads, and General Facility Conditions
	As Needed	Reseed and Repair Erosion Damage Regrade Final Cover Maintenance/Repair of Downslope of Flumes & Diversion Berms Mow Vegetation Plow Snow
Sedimentation Water Basins	Annually (or as needed)	Remove Sediment from Storm Water Basins
Leachate Collection System	Monthly	Visually Inspect for Liquids in the Leachate Transfer Manholes, Perimeter Access Manholes, & Leachate Collection Tank Secondary Containment
	Annually	Jet Leachate Collection Lines Inspect Integrity of the Leachate Collection Tank Inspect the Leachate Collection Tank Inspect/Repair/Replace Pumps, Transducers, etc.
Settlement Monitoring	Annually	Measure elevations relative to mean sea level



LEGEND

- MUNICIPAL BOUNDARY
- PROPERTY BOUNDARY
- ROAD RIGHT-OF-WAY
- PERMITTED SOLID WASTE BOUNDARY
- PHASE BOUNDARY
- FINAL COVER (CLOSED)
- APPROXIMATE 100-YEAR FLOODPLAIN DELINEATION
- PROPOSED NORTHEAST EXPANSION VERTICAL FOOTPRINT
- PROPOSED NORTHEAST EXPANSION HORIZONTAL FOOTPRINT
- EXISTING EDGE OF WOODS/SHRUBS
- 1000 EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- DH-33 EXISTING GROUNDWATER MONITORING WELL
- PW-8 EXISTING PRIVATE WELL
- GP-13 EXISTING GAS PROBE
- TB-68 EXISTING SOIL BORING LOCATION
- MH EXISTING MANHOLE
- LHW-1A EXISTING LEACHATE HEADWELL
- L-2 EXISTING LYSIMETER
- EXISTING STAFF GAUGE
- TP-4 EXISTING TEST PIT
- DH-44 ABANDONED MONITORING WELL
- PW-5 ABANDONED PRIVATE WELL
- GP-3 ABANDONED GAS PROBE
- LHW-2B ABANDONED LEACHATE HEADWELL
- SEC2GW60 EXISTING LFG EXTRACTION WELL
- SEC2GW45 EXISTING CAISSON LFG EXTRACTION WELL
- S2P080C3 EXISTING SUPPLEMENTAL EXTRACTION WELL
- GP-11 PROPOSED GAS PROBE
- PROPOSED SOLID WASTE BOUNDARY SETBACK
- PROPOSED STORM WATER BASIN
- PROPOSED ROAD

NOTES:

1. DRONE SURVEY PERFORMED BY CQM ON APRIL 9, 2019 AND SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY SRMC ON APRIL 6, 2017.
2. PROPERTY BOUNDARIES AND ROAD RIGHT-OF-WAYS ARE FROM DRAWINGS CREATED BY AYRES ASSOCIATES WITH SUPPLEMENTAL DATA FROM EAU CLAIRE COUNTY'S GIS DEPARTMENT. CTH Q/OLSON ROAD OVER SEVEN MILE CREEK WAS REDESIGNED AND REBUILT IN LATE 2018. THE ROAD WAS STRAIGHTENED AND RAISED. UPDATES TO THE ROAD CONFIGURATION ON DRAWINGS WILL BE PROVIDED ONCE ADDITIONAL SURVEY INFORMATION AND/OR AERIAL PHOTOGRAPHY IS PROVIDED.
3. LOCATION OF EXISTING SECTOR 2 GAS WELLS, CLEANOUTS AND LEACHATE HEADWELLS ARE FROM CQM SURVEY (AUGUST 5, 2014).
4. LOCATION OF EXISTING SECTOR 1 GAS WELLS ARE FROM AYRES AND ASSOCIATES HORIZONTAL AND VERTICAL EXPANSION FEASIBILITY REPORT (NOVEMBER 2003).
5. LOCATION OF EXISTING GAS PROBES ARE FROM AYRES 2006 AND 2013 SURVEYS, AND CQM SURVEY (AUGUST 2014).
6. MONITORING WELL AND BORING LOCATIONS, EXCEPT FOR DH-40, DH-51, DH-22R, DH-52, DH-53, DH-60, DH-60A, DH-61, DH-62, DH-62A, DH-63, TB-81, TB-82, TB-83 AND TB-83B ARE FROM AYRES ASSOCIATES HORIZONTAL AND VERTICAL EXPANSION FEASIBILITY REPORT (NOVEMBER 2003).
7. MONITORING WELL (DH-40 AND DH-51) LOCATIONS ARE FROM AYRES ASSOCIATES SECTOR 2-PLAN OF OPERATION-PLAN MODIFICATION (AUGUST 2011).
8. MONITORING WELL (DH-52 AND DH-53) LOCATIONS ARE BASED ON AYRES ASSOCIATES WELL INFORMATION FORM DATED SEPTEMBER 2006. MONITORING WELL DH-22R LOCATION BASED ON AYRES ASSOCIATES WELL INFORMATION FORM DATED OCTOBER 2011.
9. BORINGS TB-81 THROUGH TB-83B AND WELLS DH-60 THROUGH DH-63 INSTALLED IN DECEMBER 2018 FOR THE NORTHEAST EXPANSION AND SURVEYED BY CQM, INC. ON JANUARY 8, 2019.
10. EXISTING TEST PIT LOCATIONS ARE FROM AYRES AND ASSOCIATES HORIZONTAL AND VERTICAL EXPANSION FEASIBILITY REPORT (NOVEMBER 2003).
11. MONITORING WELLS THAT HAVE BEEN REPLACED ARE DESIGNATED WITH THE LETTER "R" IN WELL NAME (DH-4R). PIEZOMETER LOCATIONS ARE DESIGNATED WITH THE LETTERS "A, B OR C" (DH-22A/DH-22B).
12. GAS EXTRACTION WELLS ARE LABELED PER ADVANCED DISPOSAL NAMING SCHEME IN WHICH THE NUMBERS CORRELATE TO THE WDNR NAMING SCHEME.

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 7/8/2019
DRAWN BY SSW/SRC DESIGNED BY SSW
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ADVANCED DISPOSAL
SEVEN MILE CREEK LANDFILL
EAU CLAIRE, WISCONSIN

FEASIBILITY REPORT
SECTOR 2-NORTHEAST EXPANSION
ENVIRONMENTAL MONITORING PLAN

SHEET NO. **30**
PROJECT NO. 180720

1" 1/2" 0"

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