February 9, 2018 Reference No. 086120

Mr. David Rozeboom
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
Eau Claire, Wisconsin 54701

Dear Mr. Rozeboom:

Re: Annual Operation, Maintenance, and Monitoring Report
January 2017 through December 2017
Former Holtz Krause Closed Landfill
Wausau, Wisconsin

GHD Services Inc. (GHD) is submitting the Annual Operation, Maintenance, and Monitoring (OM&M) Report on behalf of the City of Wausau for the former Holtz Krause Landfill in Wausau, Wisconsin. The report covers the period of January 2017 through December 2017.

One hard copy of the report is being sent to your attention for review.

Please review the report at your earliest convenience and contact me if you have any questions or require additional information.

Sincerely,

GHD

Thomas F. Hobday

TH/sb/3

Encl.

cc: Kevin Fabel, City of Wausau (via email)

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Final

Annual Operation, Maintenance, and Monitoring Report
January 2017 through December 2017

Former Holtz Krause Landfill
Wausau, Wisconsin

City of Wausau

GHD | 1801 Old Highway 8 Northwest Suite 114 St. Paul Minnesota 55112 USA

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1. Introduction

GHD Services, Inc. (GHD) has prepared this Operation, Maintenance, and Monitoring (OM&M) Report (Report) for the former Holtz Krause Landfill (Site) in Wausau, Wisconsin, on behalf of the City of Wausau. This Report presents the results of OM&M activities at the Site from January 2017 through December 2017 as required by the Operation and Maintenance (O&M) Plan.

Since 1995, the City of Wausau has operated the landfill gas system, maintained the cap, measured settlement, and monitored groundwater at and near the landfill. Under the September 25, 2012 Purchase Agreement, Marathon County purchased the landfill property and the Holtz Krause Steering Committee developed the landfill into a soccer complex. Figure 1.1 shows the landfill, soccer complex, and gas extraction system components.

The September 25, 2012 Purchase Agreement states that the City of Wausau will continue to operate and maintain the landfill gas collection system and landfill cap outside the soccer field area. The Parks department, serving the County and City, is responsible for Operation and Maintenance of the soccer complex, which includes the irrigation system, under-drains, field turf, concession building, maintenance building, parking lots, and Championship Field lights. As part of the 2012 Agreement, the Holtz Krause Steering Committee is to provide $54,000 in funds to the County for the purpose of funding the future replacement of the flare which would likely occur after the flare is 15 to 20 years old (i.e. 2028 to 2033).

This report provides the results of the OM&M performed that is the responsibility of the City of Wausau (landfill gas collection system OM&M, site inspections, and landfill cover areas outside of the soccer complex).

1.1 Site Description

The Holtz Krause Landfill and vicinity is a 64 acre site that operated between 1957 and 1980. The Site is located at the end of East Kent Street, east of Grand Avenue. This landfill received approximately 2.0 million cubic yards (CY) of waste including municipal solid waste, non-combustible waste, demolition material, and wood waste.

The landfill is surrounded by a wetland (south), single residence, Curling Club (west), cemetery (northwest), cell tower (north), and railroad operations (north and east).

In 2013, construction of the soccer complex and modifications and repairs of the gas extraction system were completed. The landfill gas collection system now consists of the following:

- 32 landfill gas extraction wells housed in flush-mounted vaults
- Header pipe, control valves, and condensate drainage system
- Landfill gas flare consisting of blower skid, flare, controls, and other associated equipment
- 13 landfill gas monitoring probes

The landfill cover system consists of the following (from ground surface)

- A vegetative layer consisting of 6 to 8 inches of topsoil and 3 feet of rooting zone soil
- Primary barrier layer consisting of a 40-mil very low density polyethylene (VLDPE) geomembrane liner
- Secondary barrier layer consisting of 2 feet of compacted clay
- The 1982 soil cover (0 to 2 feet thick)

The soccer field utilities are installed entirely above the liner within the rooting zone. These include the irrigation system, under drains, storm drains, water, sanitary and electrical. The landfill gas header piping is installed below the liner.

1.2 Objectives and Requirements

As required in the O&M Plan for the Site, the City is responsible for the following OM&M items:

- Weekly monitoring and inspections of the flare station from April through September
- Every other week monitoring and inspections of the flare station from October through March
- Twice monthly monitoring of landfill gas composition at the flare station from November through February
- Monthly monitoring of landfill gas composition at the flare station from March through October
- Semi-annual preventative maintenance of the flare station
- Monthly monitoring and inspection of landfill gas extraction wells (gas composition, flow rate, header vacuum, and well condition) from April through September
- Quarterly monitoring and inspection of landfill gas extraction wells (gas composition, flow rate, header vacuum, and well condition) from October through March
- Quarterly gas probe monitoring
- Monthly general Site inspections

Results of the OM&M items noted above are presented in the following sections.

2. Gas Extraction System and Flare Station

2.1 Overview and System Components

The landfill gas extraction system consists of the following components:

- 32 gas extraction wells housed in flush-mounted vaults
- Header pipe, control valves, and condensate drainage system
- Landfill gas flare consisting of blower skid, flare, controls, and other associated equipment
- 13 gas monitoring probes

Through the use of a blower at the flare station, vacuum is applied to the landfill gas extraction wells, via the header pipe network, to extract landfill gas from the landfill and transfer it to the flare station. At the flare station, extracted landfill gas is supplied to a candlestick flare for combustion and destruction. Landfill gas condensate that accumulates in the header piping or at the flare station drains to the City of Wausau sanitary sewer via a condensate sump and drip leg.

Gas monitoring probes are installed around the perimeter of the landfill to allow monitoring of any landfill gas migration beyond the landfill limits.

The components of the gas extraction system are shown on Figure 1.1.

2.2 Flare Station OM&M

The required flare station OM&M consists of the following:

- Weekly monitoring and inspection of the flare station operation from April through September
- Every other week monitoring and inspections of the flare station operation from October through March
- Twice weekly remote flare station monitoring
- Twice monthly monitoring of flare station landfill gas composition from November through February
- Monthly monitoring of flare station landfill gas composition from March through October
- Semi-annual preventative maintenance of flare station

Weekly and every other week flare station inspections consist of recording all current operating conditions (flow rate, oxygen content, gas/flare temperatures, gas pressures, header vacuum, system hours, etc.) listed on the “Weekly Flare Station Inspection Form” (included in the O&M Plan). A summary of inspection results are presented in Table 2.1. Weekly and every other week flare inspection forms are included in Appendix A.

In addition to on-Site inspections, the flare station was monitored at least twice per week via the remote (internet) connection to verify operation. Any issues or shutdowns discovered during remote monitoring were logged, and are detailed in Section 2.2.1.

Monitoring of landfill gas composition (percent each: methane, carbon dioxide, and oxygen) was completed a minimum of one time per month from April to September, and a minimum of two times per month from October to March. The results of landfill gas monitoring at the flare station are presented in Tables 2.1 and 2.2.

Semi-annual flare station maintenance consists of performing all flare manufacturer specified inspections and preventative maintenance. The semi-annual inspection and maintenance events were performed by GHD on behalf of the City of Wausau in April 2017 and October 2017. The semi-annual maintenance reports are included in Appendix B.

2.2.1 Unscheduled Flare Station Shutdowns

During the reporting period (January 2017 through December 2017), the flare station experienced 8 unscheduled shutdowns. Details of the shutdowns are as follows:

- January 8, 2017: The flare station experienced a high condensate level shutdown. The condensate was drained and the flare was restarted on January 9, 2017.
- January 16, 2017: The flare station experience a high condensate level shutdown. The condensate was drained and the flare was restarted on January 17, 2017.
- April 10, 2017: The flare shut down due to utility outage. The flare was restarted once power was restored.
- June 11, 2017: The flare station shut down to utility outage caused by a thunderstorm. The flare station was restarted once power was restored.
- June 12, 2017: The flare station shut down to utility outage caused by a thunderstorm. The flare station was restarted once power was restored.
- June 14, 2017: The flare station shut down to utility outage caused by a thunderstorm. The flare station was restarted once power was restored.
- June 20, 2017: The flare station experienced a low flame temperature shutdown. The flare was restarted on June 20, 2017.
- July 3, 2017: The flare station experienced a low flame temperature shutdown. The flare was restarted on July 3, 2017.

The flare station operated for 8,658 of the 8,760 available hours (99-percent) during the reporting period.

2.3 Gas Extraction Well Monitoring

Gas extraction well monitoring is performed on a monthly basis April through September, and on a quarterly basis October through March, in accordance with the O&M Plan and consists of monitoring the landfill gas concentration, flow rate, and vacuum at each gas extraction well. Additionally, at the time of monitoring, the condition of each well is inspected and evaluated. Any maintenance needs found are then completed, as necessary.

During gas well monitoring, extraction well flow rates were adjusted based upon the composition of landfill gas within the individual wells. Wells were adjusted to supply landfill gas to the flare station with a nominal methane concentration of 30-percent. Landfill gas was extracted from the wellfield at approximately 80 cubic feet per minute (cfm) during the reporting period.

Results of the gas extraction well monitoring are presented in Table 2.2.

2.4 Gas Probe Monitoring

Landfill gas probe monitoring is conducted on a quarterly basis at the thirteen gas probes installed around the perimeter of the Site. Locations of the gas probes are presented on Figure 1.1. Monitoring at each probe consisted of the gas composition (methane, carbon dioxide, oxygen, and

balance). Probes were purged for a minimum of 210 seconds before a final measurement was recorded.

Gas probe monitoring results are presented in Table 2.3. Methane was non-detect at all probes during the reporting period monitoring events, indicating that the gas extraction system has been effective at controlling landfill gas migration from the Site.

2.5 Landfill Gas Condensate

Landfill gas condensate, collected in the landfill gas header and at the flare station, gravity drains to a drip leg near the flare station before draining to the City of Wausau sanitary sewer. Landfill gas condensate is sampled at the direction/discretion of the City of Wausau Wastewater Treatment Facility.

3. Landfill Cover

In accordance with the O&M Plan, the City was responsible for completing general Site inspections on a monthly basis. Any issues identified in monthly inspections were then reported to the responsible party (i.e. county for soccer complex/field issues, city for landfill areas outside of the soccer complex, etc.).

The Site inspections focused on the following main components:

- Landfill cover area
- Landfill gas extraction wells
- Landfill gas monitoring probes
- Flare station area
- Access roads/paths associated with the Site

Inspections are completed on the “Landfill Site Inspection” form previously provided in the Site O&M Plan. Copies of the monthly inspection forms are provide in Appendix C.

No major issues were noted during the monthly Site inspections requiring further maintenance work. Vegetation trimming was requested and completed inside the flare station area in May and July 2017.

4. Conclusions

Based upon the OM&M activities performed in the reporting period, the following conclusions are made:

- The flare station provided consistent, reliable operation throughout the reporting period with 99-percent up-time from January 1, 2017 through December 31, 2017.

- The flare station controls allowed extraction amounts to closely match landfill production (approximately 80 cfm at 33 to 40-percent methane). Additionally, this resulted in minimal amounts of oxygen within the landfill waste, ensuring the landfill remains in anaerobic gas production and limits the potential for subsurface fires.
- Landfill gas monitoring probes were all non-detect for methane during the reporting period, indicating that landfill gas extraction rates are sufficient to prevent off-Site gas migration.
- The general Site was noted to be in good condition throughout the reporting period, with no significant concerns.
- Gas composition at gas extraction wells was noted to be very consistent throughout the reporting period. This consistency supports recommended changes to the gas monitoring frequency proposed in Section 5 (Recommendations).

5. Recommendations

Based upon the consistent performance of the gas extraction and flare system, the following modifications to the system monitoring schedule are being recommended based on analysis of historical system data:

- For extraction wells that are always off (valve closed) (wells EW-1, EW-2, EW-8, EW-9, EW-11, EW-13, EW-14, EW-15, EW-22, EW-23, EW-35, and EW-38); change monitoring frequency to annual monitoring with half the wells monitored in June (wells EW-1, EW-2, EW-8, EW-9, EW-22, and EW-23) and half the wells monitored in July (wells EW-11, EW-13, EW-14, EW-15, EW-35, and EW-38).
- For extraction wells that are always on (valve open) (wells EW-3, EW-7, EW-10, EW-18, EW-19, EW-20, and EW-31); change monitoring frequency to quarterly monitoring (February/March, May, August, October/November).
- For the remaining extraction wells that are not consistently on or off (wells EW-4, EW-5, EW-6, EW-21, EW-24, EW-30, EW-32, EW-33, EW-34, EW-36, and EW-37); retain the existing monitoring schedule of monthly monitoring from April through September, and quarterly monitoring from October through March.

A summary of the proposed monitoring schedule is provided in Table 5.1.

Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet

N

GHD

CITY OF WAUSAU
FORMER HOLTZ KRAUSE LANDFILL
WAUSAU, WISCONSIN

SITE PLAN

Project No. **086120-17**
Revision No. **-**
Date **01/17/2018**

FIGURE 1.1

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Table 2.1

Flare Station Operational Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

Date	Header Pressure (in H_2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (^oF)	Flare Temp (^oF)	Status (on/off)	System Hours (hours)
1/3/2017	-5.6	39.4	33.5	0.0	81	50	1,400	on	27,840
1/10/2017	-3.9	N/R	N/R	N/R	85	49	1,450	on	27,991
1/17/2017	-4.3	N/R	N/R	N/R	75	47	1,366	on	28,150
1/24/2017	-6.3	38.1	33.1	0.0	79	48	1,437	on	28,318
1/31/2017	-6.4	N/R	N/R	N/R	76	48	1,355	on	28,485
2/7/2017	-5.0	39.7	33.6	0.0	80	47	1,452	on	28,632
2/14/2017	-5.1	N/R	N/R	N/R	76	47	1,407	on	28,821
2/21/2017	-6.2	36.5	32.2	0.0	76	48	1,416	on	28,989
2/28/2017	-5.1	N/R	N/R	N/R	84	47	1,414	on	29,158
3/7/2017	-6.8	37.2	32.7	0.0	83	47	1,334	on	29,325
3/14/2017	-6.2	N/R	N/R	N/R	76	45	1,357	on	29,492
3/21/2017	-6.3	38.8	33.2	0.0	76	46	1,359	on	29,659
3/28/2017	-6.6	N/R	N/R	N/R	75	46	1,494	on	29,828
4/4/2017	-6.3	38.2	32.9	0.0	75	47	1,375	on	29,996
4/11/2017	-6.9	N/R	N/R	N/R	80	47	1,456	on	30,155
4/18/2017	-5.2	38.7	32.8	0.0	85	48	1,331	on	30,322
4/25/2017	-4.8	N/R	N/R	N/R	76	50	1,353	on	30,488
5/2/2017	-7.8	N/R	N/R	N/R	76	48	1,318	on	30,656
5/9/2017	-5.9	N/R	N/R	N/R	75	48	1,364	on	30,823
5/16/2017	-5.4	37.0	32.7	0.0	80	50	1,403	on	30,990
5/23/2017	-6.5	N/R	N/R	N/R	77	50	1,400	on	31,159
5/30/2017	-7.1	N/R	N/R	N/R	77	50	1,359	on	31,327
6/6/2017	-7.5	N/R	N/R	N/R	79	54	1,389	on	31,496
6/13/2017	-5.5	33.3	30.4	0.2	76	60	1,315	on	31,628
6/20/2017	-7.2	N/R	N/R	N/R	78	54	1,325	on	31,781
6/27/2017	-7.5	N/R	N/R	N/R	78	54	1,422	on	31,948
7/3/2017	-5.6	N/R	N/R	N/R	76	60	1,266	on	32,087
7/11/2017	-7.5	33.9	31.1	0.3	82	58	1,363	on	32,274
7/18/2017	-7.1	N/R	N/R	N/R	78	58	1,403	on	32,443
7/25/2017	-7.9	N/R	N/R	N/R	83	58	1,366	on	32,612
8/1/2017	-7.3	N/R	N/R	N/R	84	60	1,379	on	32,780

Table 2.1

Flare Station Operational Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

Date	Header Pressure (in H_2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (^oF)	Flare Temp (^oF)	Status (on/off)	System Hours (hours)
8/8/2017	-7.4	33.6	31.6	0.3	79	60	1,285	on	32,946
8/16/2017	-7.0	N/R	N/R	N/R	81	60	1,381	on	33,141
8/22/2017	-6.5	N/R	N/R	N/R	80	60	1,325	on	33,282
8/29/2017	-6.8	N/R	N/R	N/R	80	60	1,347	on	33,453
9/5/2017	-7.1	N/R	N/R	N/R	80	60	1,430	on	33,620
9/12/2017	-4.1	32.9	31.7	0.2	83	60	1,329	on	33,789
9/19/2017	-3.9	N/R	N/R	N/R	78	60	1,395	on	33,955
9/26/2017	-3.9	N/R	N/R	N/R	80	60	1,315	on	34,123
10/3/2017	-4.0	34.5	32.5	0.2	77	60	1,345	on	34,291
10/12/2017	-4.2	N/R	N/R	N/R	85	58	1,414	on	34,509
10/18/2017	-3.8	N/R	N/R	N/R	85	58	1,437	on	34,653
10/23/2017	-3.4	N/R	N/R	N/R	85	58	1,391	on	34,772
10/31/2017	-5.8	N/R	N/R	N/R	75	57	1,311	on	34,960
11/7/2017	-5.5	35.9	33.6	0.2	82	56	1,388	on	35,130
11/14/2017	-4.1	N/R	N/R	N/R	84	54	1,416	on	35,278
11/21/2017	-6.7	36.1	34.2	0.3	83	54	1,387	on	35,466
11/28/2017	-5.0	N/R	N/R	N/R	75	54	1,440	on	35,632
12/4/2017	-2.9	39.4	34.8	0.2	84	54	1,407	on	35,784
12/12/2017	-5.8	N/R	N/R	N/R	83	50	1,343	on	35,969
12/19/2017	-5.5	36.8	33.8	0.2	76	50	1,342	on	36,138
12/27/2017	-5.9	N/R	N/R	N/R	79	48	1,240	on	36,332

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
Flare	1/3/2017	39.4	33.5	0.0	50	81	-5.6	On
Flare	1/24/2017	38.1	33.1	0.0	48	79	-6.3	On
Flare	2/7/2017	39.7	33.6	0.0	47	80	-5.0	On
Flare	2/21/2017	36.5	32.2	0.0	48	76	-6.2	On
Flare	3/7/2017	37.2	32.7	0.0	47	83	-6.8	On
Flare	3/21/2017	38.8	33.2	0.0	46	76	-6.3	On
Flare	4/4/2017	38.2	32.9	0.0	47	75	-6.3	On
Flare	4/18/2017	38.7	32.8	0.0	48	85	-5.2	On
Flare	5/16/2017	37.0	32.7	0.0	50	80	-5.4	On
Flare	6/13/2017	33.3	30.4	0.2	60	76	-5.5	On
Flare	7/11/2017	33.9	31.1	0.3	58	82	-7.5	On
Flare	8/8/2017	33.6	31.6	0.3	60	79	-7.4	On
Flare	9/12/2017	32.9	31.7	0.2	60	83	4.1	On
Flare	10/3/2017	34.5	32.5	0.2	60	77	-4.0	On
Flare	11/7/2017	35.9	33.6	0.2	56	82	-5.5	On
Flare	11/21/2017	36.1	34.2	0.3	54	83	-6.7	On
Flare	12/4/2017	39.4	34.8	0.2	54	84	-2.9	On
Flare	12/19/2017	36.8	33.8	0.2	50	76	-5.5	On
EW-01	3/21/2017	3.6	5.0	15.0	34	0	-5.7	Off
EW-01	4/18/2017	9.1	22.4	0.0	41	0	-4.2	Off
EW-01	5/16/2017	6.0	19.5	1.9	60	0	-4.8	Off
EW-01	6/13/2017	7.5	20.6	0.7	66	0	-5.0	Off
EW-01	7/11/2017	2.0	8.5	11.1	70	0	-6.7	Off
EW-01	8/8/2017	6.1	19.3	0.7	68	0	-6.6	Off
EW-01	9/12/2017	6.9	20.5	0.9	62	0	-5.7	Off
EW-01	10/3/2017	2.2	11.0	8.7	65	0	-3.3	Off
EW-02	3/21/2017	19.3	25.6	0.1	32	0	-5.7	Off
EW-02	4/18/2017	19.5	26.3	0.0	41	0	-4.2	Off
EW-02	5/16/2017	20.7	26.2	0.1	57	0	-4.7	Off
EW-02	6/13/2017	21.4	25.9	0.1	64	0	-4.9	Off
EW-02	7/11/2017	24.4	26.3	0.2	68	0	-6.3	Off
EW-02	8/8/2017	23.4	26.4	0.5	68	0	-6.4	Off
EW-02	9/12/2017	27.5	28.0	0.3	60	0	-5.4	Off
EW-02	10/3/2017	22.0	26.4	1.2	61	0	-3.4	Off
EW-03	3/21/2017	45.1	32.3	0.1	46	2	-5.3	On
EW-03	4/18/2017	43.0	31.7	0.0	48	7	-4.1	On
EW-03	5/16/2017	39.9	31.2	0.0	54	13	-4.6	On

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-03	6/13/2017	34.0	29.0	0.1	59	10	-4.9	On
EW-03	7/11/2017	37.7	30.2	0.2	59	9	-6.5	On
EW-03	8/8/2017	36.8	31.0	0.3	60	12	-6.5	On
EW-03	9/12/2017	39.8	32.2	0.3	58	10	-5.4	On
EW-03	10/3/2017	36.5	28.9	2.1	58	7	-3.4	On
EW-04	3/21/2017	33.1	29.6	0.1	43	9	-5.6	On
EW-04	4/18/2017	31.3	29.1	0.0	46	13	-4.2	On
EW-04	5/16/2017	29.7	28.3	0.0	54	6	-4.6	On
EW-04	6/13/2017	28.0	27.4	0.1	60	7	-4.9	On
EW-04	7/11/2017	27.4	27.3	0.2	62	0	-6.7	Off
EW-04	8/8/2017	26.6	27.8	0.4	69	0	-6.5	Off
EW-04	9/12/2017	29.1	29.2	0.4	59	6	-5.2	On
EW-04	10/3/2017	32.2	29.9	0.4	61	6	-3.4	On
EW-05	3/21/2017	23.6	27.4	0.0	41	11	-5.6	On
EW-05	4/18/2017	22.2	26.4	0.0	44	0	-4.1	Off
EW-05	5/16/2017	21.7	25.3	0.0	57	0	-4.6	Off
EW-05	6/13/2017	19.9	23.9	0.2	63	0	-4.9	Off
EW-05	7/11/2017	21.3	24.0	0.1	63	0	-6.7	Off
EW-05	8/8/2017	22.0	24.5	0.4	71	0	-6.5	Off
EW-05	9/12/2017	28.6	26.6	0.3	60	9	-4.6	On
EW-05	10/3/2017	31.2	27.3	0.3	57	7	-3.3	On
EW-06	3/21/2017	25.2	29.2	0.1	46	10	-5.2	On
EW-06	4/18/2017	24.7	28.8	0.0	49	0	-4.3	Off
EW-06	5/16/2017	25.1	27.9	0.0	58	0	-4.6	Off
EW-06	6/13/2017	24.9	26.5	0.1	64	0	-4.9	Off
EW-06	7/11/2017	26.5	26.7	0.1	66	0	-6.7	Off
EW-06	8/8/2017	26.6	27.3	0.3	69	0	-6.6	Off
EW-06	9/12/2017	29.6	28.6	0.3	59	9	-3.9	On
EW-06	10/3/2017	30.3	29.2	0.3	60	8	-3.3	On
EW-07	3/21/2017	35.5	30.5	0.1	45	6	-5.6	On
EW-07	4/18/2017	34.4	30.1	0.0	48	2	-4.3	On
EW-07	5/16/2017	36.1	29.9	0.0	56	7	-4.5	On
EW-07	6/13/2017	35.2	28.9	0.1	63	10	-4.9	On
EW-07	7/11/2017	35.1	29.3	0.1	66	8	-6.6	On
EW-07	8/8/2017	33.3	29.8	0.3	70	9	-6.3	On
EW-07	9/12/2017	34.1	30.8	0.3	60	13	-4.1	On

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-07	10/3/2017	34.6	30.8	0.3	61	9	-3.4	On
EW-08	3/21/2017	10.5	24.1	0.2	36	0	-5.7	Off
EW-08	4/18/2017	11.8	23.5	0.0	42	0	-4.4	Off
EW-08	5/16/2017	11.9	22.9	0.0	63	0	-4.5	Off
EW-08	6/13/2017	12.9	21.9	0.3	70	0	-4.9	Off
EW-08	7/11/2017	12.5	21.6	0.4	73	0	-6.6	Off
EW-08	8/8/2017	13.1	22.2	0.5	76	0	-6.4	Off
EW-08	9/12/2017	16.5	24.2	0.3	63	0	-4.0	Off
EW-08	10/3/2017	16.3	24.5	0.3	63	0	-3.3	Off
EW-09	3/21/2017	17.8	26.2	0.1	38	0	-5.7	Off
EW-09	4/18/2017	20.1	26.3	0.0	43	0	-4.4	Off
EW-09	5/16/2017	24.0	26.3	0.0	58	0	-4.5	Off
EW-09	6/13/2017	24.1	25.5	0.2	63	0	-5.0	Off
EW-09	7/11/2017	23.3	25.4	0.2	67	0	-6.6	Off
EW-09	8/8/2017	23.6	26.4	0.4	70	0	-6.4	Off
EW-09	9/12/2017	25.4	28.2	0.3	62	0	-3.9	Off
EW-09	10/3/2017	21.1	27.4	0.3	62	0	-3.3	Off
EW-10	3/21/2017	34.3	30.8	0.1	44	0	-5.5	On
EW-10	4/18/2017	32.5	30.3	0.0	47	6	-4.5	On
EW-10	5/16/2017	32.2	29.0	0.0	56	9	-4.6	On
EW-10	6/13/2017	31.3	28.0	0.2	60	7	-5.0	On
EW-10	7/11/2017	31.9	27.8	0.2	63	8	-6.6	On
EW-10	8/8/2017	31.6	28.6	0.4	65	11	-6.1	On
EW-10	9/12/2017	32.6	30.0	0.3	59	9	-3.9	On
EW-10	10/3/2017	33.0	30.5	0.3	59	6	-3.3	On
EW-11	3/21/2017	2.6	13.0	6.1	33	0	-5.6	Off
EW-11	4/18/2017	2.5	17.5	0.0	43	0	-4.5	Off
EW-11	5/16/2017	2.3	16.7	0.0	65	0	-4.5	Off
EW-11	6/13/2017	2.2	16.8	0.1	68	0	-4.9	Off
EW-11	7/11/2017	2.3	16.6	1.1	75	0	-6.6	Off
EW-11	8/8/2017	3.1	17.8	0.4	77	0	-6.2	Off
EW-11	9/12/2017	5.9	20.7	0.3	63	0	-3.9	Off
EW-11	10/3/2017	4.5	18.6	2.2	64	0	-3.3	Off
EW-12	3/21/2017	19.6	28.1	0.1	41	0	-5.9	Off
EW-12	4/18/2017	21.9	28.5	0.0	44	0	-4.1	Off

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-12	5/16/2017	24.4	27.8	0.0	64	0	-4.4	Off
EW-12	6/13/2017	24.6	26.8	0.1	67	0	-5.3	Off
EW-12	7/11/2017	25.2	26.6	0.2	76	0	-6.6	Off
EW-12	8/8/2017	26.3	27.7	0.4	79	0	-6.2	Off
EW-12	9/12/2017	31.1	28.9	0.9	62	7	-3.6	On
EW-12	10/3/2017	27.0	29.7	0.3	62	6	-3.0	On
EW-13	3/21/2017	0.8	2.8	18.9	33	0	0.1	Off
EW-13	4/18/2017	2.2	7.9	11.8	42	0	-4.5	Off
EW-13	5/16/2017	4.8	14.7	4.5	63	0	-4.5	Off
EW-13	6/13/2017	5.1	19.7	0.1	63	0	-5.3	Off
EW-13	7/11/2017	6.7	19.9	0.2	71	0	-6.6	Off
EW-13	8/8/2017	6.6	20.3	0.4	72	0	-6.2	Off
EW-13	9/12/2017	9.6	23.0	0.1	62	0	-3.4	Off
EW-13	10/3/2017	5.9	21.9	0.4	62	0	-3.3	Off
EW-14	3/21/2017	0.1	0.1	22.2	32	0	-6.0	Off
EW-14	4/18/2017	7.8	22.2	0.9	45	0	-4.3	Off
EW-14	5/16/2017	8.3	21.3	0.9	63	0	-4.2	Off
EW-14	6/13/2017	12.4	21.7	0.8	63	0	-5.1	Off
EW-14	7/11/2017	13.3	20.9	0.2	74	0	-6.3	Off
EW-14	8/8/2017	10.9	19.8	0.7	78	0	-6.0	Off
EW-14	9/12/2017	11.7	21.4	0.5	62	0	-3.4	Off
EW-14	10/3/2017	10.5	20.8	0.3	62	0	-3.3	Off
EW-15	3/21/2017	0.5	18.7	0.3	32	0	-0.2	Off
EW-15	4/18/2017	0.1	18.0	0.6	44	0	-4.4	Off
EW-15	5/16/2017	3.3	17.0	0.0	60	0	-4.2	Off
EW-15	6/13/2017	2.1	15.1	0.1	66	0	-5.2	Off
EW-15	7/11/2017	1.3	15.2	0.1	75	0	-6.4	Off
EW-15	8/8/2017	0.5	15.9	0.6	74	0	-6.0	Off
EW-15	9/12/2017	4.4	18.0	0.3	63	0	-3.5	Off
EW-15	10/3/2017	2.2	17.7	0.2	62	0	-3.2	Off
EW-17	3/21/2017	32.2	29.6	0.1	42	0	-6.2	On
EW-17	4/18/2017	28.5	28.2	0.0	48	5	-4.1	On
EW-17	5/16/2017	26.6	26.6	0.0	61	0	-4.2	Off
EW-17	6/13/2017	25.9	16.0	8.5	67	0	-4.9	Off
EW-17	7/11/2017	20.2	13.1	9.7	78	0	-6.5	Off
EW-17	8/8/2017	35.0	26.1	0.4	72	4	-5.9	On

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-17	9/12/2017	30.1	28.2	0.2	61	7	-3.5	On
EW-17	10/3/2017	34.9	29.0	0.3	63	4	-3.2	On
EW-18	3/21/2017	49.4	35.7	0.3	44	2	-6.3	On
EW-18	4/18/2017	48.6	35.5	0.1	47	9	-4.2	On
EW-18	5/16/2017	45.7	35.2	0.2	58	9	-4.2	On
EW-18	6/13/2017	40.8	33.0	0.4	57	7	-4.8	On
EW-18	7/11/2017	42.3	32.8	0.3	63	13	-6.4	On
EW-18	8/8/2017	42.3	33.5	0.1	68	10	-5.7	On
EW-18	9/12/2017	42.3	34.9	0.3	59	10	-3.4	On
EW-18	10/3/2017	44.1	35.5	0.5	60	9	-3.3	On
EW-19	3/21/2017	54.1	40.6	0.1	41	19	-4.6	On
EW-19	4/18/2017	51.1	39.0	0.0	48	15	-3.0	On
EW-19	5/16/2017	38.8	36.6	0.1	64	10	-4.3	On
EW-19	6/13/2017	36.3	33.9	0.3	60	8	-4.9	On
EW-19	7/11/2017	33.5	33.0	0.2	71	10	-6.5	On
EW-19	8/8/2017	33.8	33.8	0.3	75	6	-5.7	On
EW-19	9/12/2017	33.0	35.3	0.4	61	8	-3.5	On
EW-19	10/3/2017	37.2	36.1	0.5	62	20	-3.3	On
EW-20	3/21/2017	48.7	37.0	0.1	47	18	-5.2	On
EW-20	4/18/2017	48.2	36.6	0.0	49	24	-3.8	On
EW-20	5/16/2017	44.1	35.8	0.0	55	26	-4.2	On
EW-20	6/13/2017	41.0	34.5	0.1	55	22	-4.8	On
EW-20	7/11/2017	37.6	34.0	0.2	59	25	-6.4	On
EW-20	8/8/2017	36.0	34.5	0.2	63	22	-5.8	On
EW-20	9/12/2017	36.3	35.7	0.2	58	19	-3.5	On
EW-20	10/3/2017	38.6	36.1	0.3	58	17	-3.3	On
EW-21	3/21/2017	36.5	28.0	0.0	36	0	-2.4	Off
EW-21	4/18/2017	33.1	28.9	0.0	46	8	-4.3	On
EW-21	5/16/2017	27.2	27.8	0.0	56	0	-4.6	Off
EW-21	6/13/2017	21.0	26.1	0.3	65	0	-5.0	Off
EW-21	7/11/2017	19.1	25.5	0.3	71	0	-6.6	Off
EW-21	8/8/2017	18.2	24.6	1.3	82	0	-6.0	Off
EW-21	9/12/2017	22.7	28.1	0.3	66	0	-3.7	Off
EW-21	10/3/2017	25.5	28.5	0.3	65	4	-3.3	On
EW-22	3/21/2017	12.8	18.6	5.2	34	0	-6.3	Off

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-22	4/18/2017	10.4	20.8	1.5	48	0	-4.5	Off
EW-22	5/16/2017	6.5	19.2	1.2	71	0	-4.9	Off
EW-22	6/13/2017	8.5	21.3	0.2	64	0	-5.4	Off
EW-22	7/11/2017	10.2	20.8	0.3	72	0	-6.8	Off
EW-22	8/8/2017	0.0	2.1	18.3	78	0	-5.8	Off
EW-22	9/12/2017	13.2	20.8	3.6	63	0	-3.8	Off
EW-22	10/3/2017	19.7	25.7	0.4	63	0	-3.4	Off
EW-23	3/21/2017	0.2	1.9	19.9	37	0	-6.2	Off
EW-23	4/18/2017	0.7	6.7	11.1	50	0	-4.5	Off
EW-23	5/16/2017	5.6	16.4	1.1	74	0	-4.8	Off
EW-23	6/13/2017	0.2	7.5	11.6	64	0	-5.5	Off
EW-23	7/11/2017	0.0	0.0	19.6	80	0	-6.8	Off
EW-23	8/8/2017	0.0	1.4	19.2	78	0	-5.8	Off
EW-23	9/12/2017	9.0	16.9	2.8	64	0	-3.7	Off
EW-23	10/3/2017	2.0	12.1	7.1	64	0	-3.4	Off
EW-24	3/21/2017	9.1	22.5	0.1	41	0	-6.3	Off
EW-24	4/18/2017	8.9	20.7	0.3	50	0	-4.4	Off
EW-24	5/16/2017	9.8	19.7	0.3	74	0	-4.8	Off
EW-24	6/13/2017	11.1	21.0	0.2	64	0	-5.4	Off
EW-24	7/11/2017	13.4	21.1	0.2	75	0	-6.7	Off
EW-24	8/8/2017	16.4	22.6	0.3	79	0	-5.8	Off
EW-24	9/12/2017	21.7	25.6	0.3	64	0	-3.7	Off
EW-24	10/3/2017	25.4	26.3	0.4	64	0	-3.4	Off
EW-30	3/21/2017	32.8	35.6	0.2	44	0	-6.2	On
EW-30	4/18/2017	28.8	33.9	0.1	50	7	-3.5	On
EW-30	5/16/2017	28.6	33.3	0.0	62	0	-4.7	Off
EW-30	6/13/2017	24.6	31.2	0.4	62	0	-5.1	Off
EW-30	7/11/2017	27.1	31.4	0.2	70	0	-6.3	Off
EW-30	8/8/2017	25.1	32.1	0.3	72	0	-5.4	Off
EW-30	9/12/2017	30.6	34.6	0.2	63	0	-3.4	Off
EW-30	10/3/2017	32.6	35.2	0.3	60	0	-3.2	Off
EW-31	3/21/2017	44.4	37.8	0.2	43	4	-5.8	On
EW-31	4/18/2017	36.8	36.0	0.0	49	8	-3.5	On
EW-31	5/16/2017	31.7	34.2	0.0	60	8	-4.7	On
EW-31	6/13/2017	30.8	33.1	0.1	57	5	-5.1	On
EW-31	7/11/2017	29.0	30.9	0.9	69	0	-6.5	Off

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-31	8/8/2017	31.5	34.5	0.4	71	8	-5.2	On
EW-31	9/12/2017	32.1	35.3	0.3	61	8	-3.3	On
EW-31	10/3/2017	34.8	35.8	0.3	61	9	-3.1	On
EW-32	3/21/2017	18.0	30.5	0.0	32	0	-4.9	Off
EW-32	4/18/2017	16.9	28.6	0.0	53	0	-3.6	Off
EW-32	5/16/2017	14.8	26.7	0.1	66	0	-4.7	Off
EW-32	6/13/2017	14.5	26.6	0.1	66	0	-5.0	Off
EW-32	7/11/2017	18.8	26.6	0.2	75	0	-6.6	Off
EW-32	8/8/2017	14.6	26.8	0.6	76	0	-5.2	Off
EW-32	9/12/2017	28.6	33.6	0.2	65	6	-3.3	On
EW-32	10/3/2017	24.1	31.5	0.6	64	0	-3.1	Off
EW-33	3/21/2017	38.0	35.5	0.1	39	0	-6.3	On
EW-33	4/18/2017	32.1	34.1	0.0	48	0	-3.6	Off
EW-33	5/16/2017	33.5	34.9	0.0	68	7	-4.6	On
EW-33	6/13/2017	25.9	32.4	0.1	60	0	-5.1	Off
EW-33	7/11/2017	31.6	34.1	0.4	68	10	-6.3	On
EW-33	8/8/2017	23.2	32.3	0.4	67	0	-5.6	Off
EW-33	9/12/2017	37.1	38.1	0.3	65	8	-3.1	On
EW-33	10/3/2017	34.4	36.3	0.3	63	6	-3.1	On
EW-34	3/21/2017	0.0	0.2	21.2	34	0	-1.3	Off
EW-34	4/18/2017	30.4	33.2	0.0	50	0	0.0	Off
EW-34	5/16/2017	27.9	33.3	0.0	67	0	-1.5	Off
EW-34	6/13/2017	24.3	32.0	0.1	66	0	-1.8	Off
EW-34	7/11/2017	28.1	33.0	0.2	76	0	-3.1	Off
EW-34	8/8/2017	23.8	32.0	0.3	75	0	-2.7	Off
EW-34	9/12/2017	36.2	37.7	0.2	65	15	0.0	On
EW-34	10/3/2017	18.1	16.7	11.4	66	0	-0.2	Off
EW-35	3/21/2017	22.9	32.4	0.7	39	0	-0.8	Off
EW-35	4/18/2017	18.2	31.2	0.0	55	0	1.1	Off
EW-35	5/16/2017	17.3	29.9	0.0	81	0	0.1	Off
EW-35	6/13/2017	15.3	26.2	1.9	67	0	-0.1	Off
EW-35	7/11/2017	0.4	0.8	19.2	94	0	0.0	Off
EW-35	8/8/2017	10.3	15.6	9.4	88	0	-0.2	Off
EW-35	9/12/2017	26.5	32.1	0.3	59	0	2.0	Off
EW-35	10/3/2017	29.5	31.9	1.4	63	0	-0.1	Off

Table 2.2

Landfill Gas Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (^{o}F)	Flow Rate (scfm)	Header Pressure (in. H_2O)	Status (on/off)
EW-36	3/21/2017	41.8	35.0	0.1	40	0	-2.1	On
EW-36	4/18/2017	38.1	34.1	0.0	43	3	0.0	On
EW-36	5/16/2017	33.3	32.4	0.0	66	7	0.1	On
EW-36	6/13/2017	28.0	30.7	0.2	63	0	-0.6	Off
EW-36	7/11/2017	26.6	29.7	0.4	76	0	-1.4	Off
EW-36	8/8/2017	26.7	30.2	0.5	81	0	-0.8	Off
EW-36	9/12/2017	30.2	31.6	0.7	64	7	-0.1	On
EW-36	10/3/2017	33.9	33.8	0.4	65	5	-0.5	On
EW-37	3/21/2017	8.6	7.0	17.6	37	0	1.8	Off
EW-37	4/18/2017	45.3	38.7	0.3	44	4	0.0	On
EW-37	5/16/2017	38.2	36.4	0.0	71	7	-0.1	On
EW-37	6/13/2017	13.8	14.9	10.1	67	0	-0.5	Off
EW-37	7/11/2017	35.8	35.8	0.3	77	8	-1.5	On
EW-37	8/8/2017	10.0	9.4	14.7	87	0	-1.1	Off
EW-37	9/12/2017	36.5	36.7	1.3	67	6	-0.5	On
EW-37	10/3/2017	32.7	32.7	1.1	65	5	-0.5	On
EW-38	3/21/2017	0.1	0.2	22.1	32	0	-6.1	Off
EW-38	4/18/2017	0.0	12.3	8.8	44	0	-4.4	Off
EW-38	5/16/2017	0.0	12.2	6.4	64	0	-4.1	Off
EW-38	6/13/2017	0.0	8.1	6.1	64	0	-4.9	Off
EW-38	7/11/2017	1.0	11.9	6.5	72	0	-6.6	Off
EW-38	8/8/2017	0.0	6.6	10.7	74	0	-3.6	Off
EW-38	9/12/2017	0.1	6.3	12.1	65	0	-3.5	Off
EW-38	10/3/2017	1.3	7.1	10.0	65	0	-3.2	Off

Table 2.3

Landfill Gas Probe Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)
GP-1S	2/21/2017	0.0	8.2	9.5
GP-1S	5/9/2017	0.0	0.1	20.4
GP-1S	7/5/2017	0.0	0.1	20.0
GP-1S	10/31/2017	0.0	0.1	21.6
GP-1D	2/21/2017	0.0	0.1	20.4
GP-1D	5/9/2017	0.0	3.3	16.2
GP-1D	7/5/2017	0.0	0.2	19.8
GP-1D	10/31/2017	0.0	0.5	21.4
GP-2	2/21/2017	0.0	1.4	19.5
GP-2	5/9/2017	0.0	1.2	20.3
GP-2	7/5/2017	0.0	3.2	17.5
GP-2	10/31/2017	0.0	1.6	21.8
GP-3S	2/21/2017	0.0	0.1	21.1
GP-3S	5/9/2017	0.0	0.2	20.5
GP-3S	7/5/2017	0.0	0.2	19.9
GP-3S	10/31/2017	0.0	0.1	22.7
GP-3D	2/21/2017	0.0	0.1	21.2
GP-3D	5/9/2017	0.0	0.1	20.8
GP-3D	7/5/2017	0.0	0.1	20.1
GP-3D	10/31/2017	0.0	0.1	22.8
GP-5	2/21/2017	0.0	1.8	20.3
GP-5	5/9/2017	0.0	0.4	20.8
GP-5	7/5/2017	0.0	0.0	20.0
GP-5	10/31/2017	0.0	5.3	18.5
GP-6	2/21/2017	0.0	0.1	20.3
GP-6	5/9/2017	0.0	0.1	21.4
GP-6	7/5/2017	0.0	0.0	20.6
GP-6	10/31/2017	0.0	0.1	22.4
GP-7R	2/21/2017	0.0	0.9	21.2
GP-7R	5/9/2017	0.0	0.1	21.2
GP-7R	7/5/2017	0.0	0.1	20.0
GP-7R	10/31/2017	0.0	1.7	22.2

Table 2.3

Landfill Gas Probe Data
January through December 2017
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)
GP-10	2/21/2017	0.0	0.6	20.1
GP-10	5/9/2017	0.0	0.5	21.2
GP-10	7/5/2017	0.0	0.9	20.0
GP-10	10/31/2017	0.0	1.4	21.4
GP-11	2/21/2017	0.0	1.4	19.2
GP-11	5/9/2017	0.0	0.2	21.4
GP-11	7/5/2017	0.0	0.5	20.0
GP-11	10/31/2017	0.0	3.2	19.4
GP-12	2/21/2017	0.0	2.1	18.3
GP-12	5/9/2017	0.0	1.9	20.0
GP-12	7/5/2017	0.0	5.7	15.0
GP-12	10/31/2017	0.0	2.0	20.7
GP-13	2/21/2017	0.0	0.2	20.3
GP-13	5/9/2017	0.0	0.6	20.8
GP-13	7/5/2017	0.0	1.9	18.3
GP-13	10/31/2017	0.0	0.3	22.4
GP-14	2/21/2017	0.0	0.3	20.3
GP-14	5/9/2017	0.0	0.9	20.4
GP-14	7/5/2017	0.0	2.6	17.4
GP-14	10/31/2017	0.0	0.2	22.5

Table 5.1

Proposed Revised Monitoring Schedule
Holtz Krause Closed Landfill - Wausau, Wisconsin

Well Condition	Total Number of Wells	1st Quarter (Feb/Mar)	April	May	June	July	August	September	4th Quarter (Oct/Nov)
Wells Always Off (Annual Monitoring) (June: EW-1, 2, 8, 9, 22, and 23) (July: EW-11, 13, 14, 15, 35, and 38)	12				Half Round (June wells)	Half Round (July wells)			
Wells Always On (Quarterly Monitoring) (EW-3, 7, 10, 18, 19, 20, and 31)	7	X		X			X		X
Wells with Intermittent Operation (Monthly/Quarterly monitoring) (EW-4, 5, 6, 21, 24, 30, 32, 33, 34, 36, and 37)	13	X	X	X	X	X	X	X	X

Appendix A
Weekly Flare Station Inspection Forms

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	1/3/2017	1/10/2017	1/17/2017	1/24/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Cloudy	Cloudy	Cloudy
Ambient Temperature, deg F	25	20	32	35
Inlet Temperature, deg F (GHS-TI-301)	50	49	47	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	4	4	6
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	2	1.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	58	54	58	58
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	2.0	1.6	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.7	1.4	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.2	0.4
Blower 301 Frequency, Hz (CP-YIC-2)	19.6	17.2	17.9	20.3
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.6	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.6	3.9	4.3	6.3
Inlet Temp, DegF	53	52	51	51
Oxygen, %	0.2	0	0	0.4
Blower Speed, %	24	20	20	25
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	72	68	80	72
FLR Flame Temp, DegF	1400	1450	1366	1437
FLR Flow Press, In WC	1.8	1.9	1.6	1.7
FLR Flow Temp, DegF	63	59	64	63
Flow Rate, SCFM	81	85	75	79
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	27840	27991	28150	28318
Speed, %	24	20	20	25
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	63	59	63	63
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	81	85	75	79
Flame Temp, DegF	1408	1410	1366	1407
BLR Speed, %	24	20	20	25
Flow Pressure, In WC	1.8	1.9	1.6	1.7
Hour Meter	27834	27985	28145	28313

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	81	85	75	78
Today's Total, MMSCF	0.04	0.04	0.01	0.04
This Month's Total, MMSCF	0.24	0.95	1.76	2.52
Total Flow, MMSCF	148.84	149.55	150.33	151.13
Flow Press, In WC	1.8	1.9	1.6	1.7
Flow Temp, DegF	63	59	63	63
Flow Delta P, In WC	0.58	0.63	0.50	0.55
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.01	0.04
2 Day's Ago Flow, MMSCF	0.11	0.07	0.11	0.11
3 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.01	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
7 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.07
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	148.84	149.55	150.33	151.13
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	1/31/2017	2/7/2017	2/14/2017	2/21/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Cloudy	Clear	Clear
Ambient Temperature, deg F	20	32	35	50
Inlet Temperature, deg F (GHS-TI-301)	48	47	47	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	5	6	6
Demister Filter Delta P (GHS-PDI-301)	0.3	0.2	0.2	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1.5	1	1.5
Discharge Temperature, deg F (GHS-TI-302)	54	54	56	60
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6	2.0	1.8	1.6
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.5	1.4	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.5	0.4	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	20.4	18.9	18.7	19.6
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.6	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.4	5.0	5.1	6.2
Inlet Temp, DegF	51	50	50	50
Oxygen, %	0	0	0.1	0.4
Blower Speed, %	25	22	22	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	66	68	69	73
FLR Flame Temp, DegF	1355	1452	1407	1416
FLR Flow Press, In WC	1.6	1.7	1.6	1.6
FLR Flow Temp, DegF	59	58	59	64
Flow Rate, SCFM	76	20	77	77
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	28485	28632	28821	28989
Speed, %	25	22	22	24
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	59	58	59	64
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	75	80	76	76
Flame Temp, DegF	1384	1444	1395	1463
BLR Speed, %	25	22	22	24
Flow Pressure, In WC	1.6	1.7	1.6	1.6
Hour Meter	28480	28647	28815	28983

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	76	80	76	76
Today's Total, MMSCF	0.04	0.04	0.04	0.03
This Month's Total, MMSCF	3.33	0.70	1.51	2.32
Total Flow, MMSCF	151.93	152.74	153.55	154.36
Flow Press, In WC	1.6	1.7	1.6	1.6
Flow Temp, DegF	59	58	59	64
Flow Delta P, In WC	0.50	0.55	0.51	0.51
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.11
4 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	151.93	152.74	153.55	154.36
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	2/28/2017	3/7/2017	3/14/2017	3/21/2017
Time	10:00 AM	9:30 AM	10:00 AM	8:00 AM
Sky Conditions	Cloudy	Cloudy	Clear	Clear
Ambient Temperature, deg F	35	40	15	32
Inlet Temperature, deg F (GHS-TI-301)	47	47	45	46
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	7	7	7
Demister Filter Delta P (GHS-PDI-301)	0.3	0.2	0.2	0.2
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.5	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	57	56	50	56
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	9	11	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.6	1.6	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.3	1.3	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.3	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	19.1	21.2	19.7	20.9
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.1	6.8	6.2	6.3
Inlet Temp, DegF	50	49	48	49
Oxygen, %	0.1	0.2	0	0.1
Blower Speed, %	23	25	24	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	71	71	53	70
FLR Flame Temp, DegF	1414	1334	1357	1359
FLR Flow Press, In WC	1.9	1.5	1.6	1.6
FLR Flow Temp, DegF	61	60	54	60
Flow Rate, SCFM	84	75	76	76
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	29158	29325	29492	29659
Speed, %	23	26	24	24
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	61	60	54	60
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	84	83	76	77
Flame Temp, DegF	1422	1323	1333	1362
BLR Speed, %	23	25	24	24
Flow Pressure, In WC	1.9	1.5	1.5	1.6
Hour Meter	29152	29320	29487	29654

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	83	83	76	76
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	3.13	0.70	1.52	2.32
Total Flow, MMSCF	155.18	156	156.8	157.61
Flow Press, In WC	1.9	1.6	1.5	1.6
Flow Temp, DegF	61	59	54	60
Flow Delta P, In WC	0.61	0.50	0.50	0.52
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	155.18	156	156.8	157.61
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)		X

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	3/28/2017	4/4/2017	4/11/2017	4/18/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Cloudy	P Cldy
Ambient Temperature, deg F	45	45	45	50
Inlet Temperature, deg F (GHS-TI-301)	46	47	47	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	7	7	6	6
Demister Filter Delta P (GHS-PDI-301)	0.2	0.3	0.2	0.2
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	58	60	58	60
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	12	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.6	1.9	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.4	1.3	1.5	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4	0.3	0.4	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	20.3	20.8	20.9	18.8
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.8	3.6	3.6
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.6	6.3	6.9	5.2
Inlet Temp, DegF	49	49	50	50
Oxygen, %	0.4	0.3	0.5	0.2
Blower Speed, %	25	24	26	23
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	72	74	70	71
FLR Flame Temp, DegF	1494	1375	1456	1331
FLR Flow Press, In WC	1.6	1.6	1.7	1.9
FLR Flow Temp, DegF	61	62	61	60
Flow Rate, SCFM	75	75	80	85
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	29828	29996	30155	30322
Speed, %	25	24	26	2.3
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	61	62	61	60
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	76	75	80	85
Flame Temp, DegF	1503	1400	1429	1347
BLR Speed, %	25	24	26	23
Flow Pressure, In WC	1.6	1.6	1.7	1.9
Hour Meter	29822	29990	30150	30316

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	75	76	80	81
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	3.13	0.35	1.11	1.93
Total Flow, MMSCF	158.42	159.23	160	160.81
Flow Press, In WC	1.6	1.6	1.7	1.9
Flow Temp, DegF	61	62	61	60
Flow Delta P, In WC	0.50	0.50	0.57	0.63
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	158.42	159.23	160	160.81
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	4/25/2017	5/2/2017	5/9/2017	5/16/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Cloudy	Cloudy
Ambient Temperature, deg F	60	45	50	60
Inlet Temperature, deg F (GHS-TI-301)	50	48	48	50
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	50	7	7	6.5
Demister Filter Delta P (GHS-PDI-301)	0.25	0.2	0.2	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1.5
Discharge Temperature, deg F (GHS-TI-302)	60	52	54	64
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	11	8	8	10
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6	1.5	1.5	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.2	1.0	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	18	21.7	19.4	19.1
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.8	7.8	5.9	5.4
Inlet Temp, DegF	51	51	51	53
Oxygen, %	0.4	0	0.3	0.4
Blower Speed, %	21	27	23	23
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	78	67	74	78
FLR Flame Temp, DegF	1353	1318	1364	1403
FLR Flow Press, In WC	1.6	1.6	1.6	1.8
FLR Flow Temp, DegF	59	56	57	60
Flow Rate, SCFM	76	76	75	80
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	30488	30656	30823	30990
Speed, %	21	27	23	23
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	60	56	57	60
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	76	76	75	80
Flame Temp, DegF	1414	1313	1383	1400
BLR Speed, %	21	27	23	23
Flow Pressure, In WC	1.6	1.6	1.6	1.8
Hour Meter	30482	30650	30817	30985

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	76	76	84	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	2.72	0.11	0.92	1.72
Total Flow, MMSCF	161.6	162.41	163.21	164.02
Flow Press, In WC	1.6	1.6	1.6	1.7
Flow Temp, DegF	59	56	57	60
Flow Delta P, In WC	0.51	0.49	0.50	0.56
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.11
3 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
4 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
6 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
7 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	161.6	162.41	163.21	164.02
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Turned off heat trace for year…Turned on A/C.

Signature: Kevin S. Fabel

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	5/23/2017	5/30/2017	6/6/2017	6/13/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Clear
Ambient Temperature, deg F	50	50	70	75
Inlet Temperature, deg F (GHS-TI-301)	50	50	54	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	7	7	8	6
Demister Filter Delta P (GHS-PDI-301)	0.2	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1.5	1.3
Discharge Temperature, deg F (GHS-TI-302)	58	58	66	64
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	10	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.7	2.0	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.4	1.4	1.5	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4	0.3	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	20.2	20.9	21.2	18.5
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	6.5	7.1	7.5	5.5
Inlet Temp, DegF	53	54	56	63
Oxygen, %	0.3	0.4	0.8	1.2
Blower Speed, %	25	26	26	2.2
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	76	77	83	82
FLR Flame Temp, DegF	1400	1359	1389	1315
FLR Flow Press, In WC	1.6	1.7	1.7	1.6
FLR Flow Temp, DegF	60	61	65	68
Flow Rate, SCFM	77	79	79	76
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	31159	31327	31496	31628
Speed, %	25	26	26	22
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	60	61	65	68
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	78	77	80	76
Flame Temp, DegF	1415	1373	1397	1300
BLR Speed, %	25	26	26	22
Flow Pressure, In WC	1.6	1.7	1.7	1.6
Hour Meter	31154	31321	31490	31623

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	77	77	79	75
Today's Total, MMSCF	0.04	0.04	0.04	0.01
This Month's Total, MMSCF	2.54	3.35	0.58	1.25
Total Flow, MMSCF	164.84	165.64	166.45	167.09
Flow Press, In WC	1.6	1.7	1.7	1.6
Flow Temp, DegF	60	61	65	68
Flow Delta P, In WC	0.53	0.54	0.55	0.50
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.01
2 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.05
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	164.84	165.64	166.45	167.09
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	6/20/2017	6/27/2017	7/3/2017	7/11/17
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Clear
Ambient Temperature, deg F	58	70	75	80
Inlet Temperature, deg F (GHS-TI-301)	54	54	60	58
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	7	8	6	9
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.2	1.4	1.4	1
Discharge Temperature, deg F (GHS-TI-302)	62	63	66	72
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	10	8	14
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.7	2.0	1.6	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.5	1.3	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4	0.5	0.3	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	21.1	21.5	19	21.6
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	7.2	7.5	5.6	7.5
Inlet Temp, DegF	57	58	64	60
Oxygen, %	1.1	1	0.8	1.2
Blower Speed, %	26	27	23	27
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	80	82	86	86
FLR Flame Temp, DegF	1325	1422	1266	1363
FLR Flow Press, In WC	1.7	1.8	1.6	1.9
FLR Flow Temp, DegF	65	66	67	70
Flow Rate, SCFM	78	82	76	82
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	31781	31948	32087	32274
Speed, %	26	27	23	27
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	65	66	67	70
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	75	78	76	76
Flame Temp, DegF	1266	1425	1254	1362
BLR Speed, %	26	27	23	27
Flow Pressure, In WC	1.7	1.9	1.6	1.9
Hour Meter	31775	31943	32081	32269

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	78	78	76	82
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.94	2.73	0.24	1.12
Total Flow, MMSCF	167.81	168.61	169.29	170.2
Flow Press, In WC	1.7	1.8	1.6	1.9
Flow Temp, DegF	65	66	67	70
Flow Delta P, In WC	0.54	0.59	0.50	0.60
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
3 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
5 Day's Ago Flow, MMSCF	0.08	0.11	0.12	0.11
6 Day's Ago Flow, MMSCF	0.07	0.12	0.12	0.10
7 Day's Ago Flow, MMSCF	0.08	0.11	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	167.81	168.61	169.29	170.2
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	7/18/2017	7/25/2017	8/1/2017	8/8/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Clear	Clear
Ambient Temperature, deg F	80	75	80	70
Inlet Temperature, deg F (GHS-TI-301)	58	58	60	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	9	9.5	9.5	8
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1.2	1.4
Discharge Temperature, deg F (GHS-TI-302)	70	68	72	72
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	10	8	11	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.7	2.0	2.0	1.7
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.4	1.5	1.5	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.5	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	20.9	21.8	21.3	20.6
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.8	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	7.1	7.9	7.3	7.4
Inlet Temp, DegF	61	61	62	62
Oxygen, %	1	0.7	1.1	0.6
Blower Speed, %	26	28	27	27
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	84	83	89	81
FLR Flame Temp, DegF	1403	1366	1379	1285
FLR Flow Press, In WC	1.7	1.9	1.8	1.7
FLR Flow Temp, DegF	72	71	73	69
Flow Rate, SCFM	78	84	84	79
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	32443	32612	32780	32946
Speed, %	26	28	27	27
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	72	71	73	69
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	78	83	84	79
Flame Temp, DegF	1418	1359	1367	1316
BLR Speed, %	26	28	27	27
Flow Pressure, In WC	1.7	1.9	1.9	1.7
Hour Meter	32437	32607	32774	32941

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	79	83	83	79
Today's Total, MMSCF	0.04	0.05	0.04	0.04
This Month's Total, MMSCF	1.94	2.75	0	0.83
Total Flow, MMSCF	171.03	171.84	172.66	173.48
Flow Press, In WC	1.7	1.9	1.9	1.7
Flow Temp, DegF	72	71	73	69
Flow Delta P, In WC	0.56	0.62	0.62	0.56
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.05	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	171.03	171.84	172.66	173.48
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	8/16/2017	8/22/2017	8/29/2017	9/5/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Cloudy
Ambient Temperature, deg F	70	60	70	55
Inlet Temperature, deg F (GHS-TI-301)	60	60	60	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	9	8	8	8
Demister Filter Delta P (GHS-PDI-301)	0.3	0.2	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	70	68	68	64
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9	8	14	9
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.5	1.8	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.4	1.2	1.4	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4	0.3	0.4	0.4
Blower 301 Frequency, Hz (CP-YIC-2)	21	20.5	20.6	21.1
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	7.0	6.5	6.8	7.1
Inlet Temp, DegF	63	63	63	63
Oxygen, %	0.8	0.5	0.8	0.3
Blower Speed, %	26	25	25	26
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	84	80	85	76
FLR Flame Temp, DegF	1381	1325	1347	1430
FLR Flow Press, In WC	1.8	1.5	1.7	1.7
FLR Flow Temp, DegF	72	71	71	68
Flow Rate, SCFM	81	75	80	79
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	33141	33282	33453	33620
Speed, %	26	25	25	26
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	72	71	71	68
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	81	80	79	80
Flame Temp, DegF	1360	1357	1282	1440
BLR Speed, %	26	25	25	26
Flow Pressure, In WC	1.8	1.6	1.7	1.7
Hour Meter	33136	33277	33447	33614

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	81	81	80	80
Today's Total, MMSCF	0.05	0.04	0.04	0.04
This Month's Total, MMSCF	1.75	2.45	3.26	0.47
Total Flow, MMSCF	174.42	175.11	175.92	176.73
Flow Press, In WC	1.8	1.6	1.7	1.7
Flow Temp, DegF	72	71	71	68
Flow Delta P, In WC	0.58	0.51	0.56	0.56
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
5 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
7 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	174.42	175.1	175.92	176.73
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments:

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	9/12/2018	9/19/2017	9/26/2018	10/3/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Cloudy	Cloudy
Ambient Temperature, deg F	65	70	70	70
Inlet Temperature, deg F (GHS-TI-301)	60	60	60	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	5	5	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.1	1	1	1
Discharge Temperature, deg F (GHS-TI-302)	65	64	67	66
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	15	12	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.5	1.7	1.6
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.2	1.4	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.3	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	17.6	16.9	17.1	17
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.1	3.9	3.9	4.0
Inlet Temp, DegF	63	63	63	63
Oxygen, %	0.9	0.4	0.5	0.4
Blower Speed, %	20	19	19	19
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	88	79	83	81
FLR Flame Temp, DegF	1329	1395	1315	1345
FLR Flow Press, In WC	1.9	1.7	1.8	1.7
FLR Flow Temp, DegF	68	66	69	69
Flow Rate, SCFM	83	78	80	77
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	33789	33955	34123	34291
Speed, %	20	19	19	19
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	68	66	69	69
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	83	78	78	77
Flame Temp, DegF	1310	1349	1340	1341
BLR Speed, %	20	19	19	19
Flow Pressure, In WC	1.9	1.7	1.8	1.7
Hour Meter	33783	33949	34117	34285

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	83	80	77
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.28	2.09	2.91	0.23
Total Flow, MMSCF	177.55	178.35	179.17	179.99
Flow Press, In WC	1.9	1.7	1.8	1.7
Flow Temp, DegF	68	66	69	69
Flow Delta P, In WC	0.62	0.53	0.56	0.53
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
5 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
7 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	177.55	178.35	179.17	179.98
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	10/12/2017	10/18/2017	10/23/2017	10/31/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Cloudy	Cloudy
Ambient Temperature, deg F	50	65	45	30
Inlet Temperature, deg F (GHS-TI-301)	58	58	58	57
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4.5	4	4	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	2
Discharge Temperature, deg F (GHS-TI-302)	62	60	60	62
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	12	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.8	2.0	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.2
Blower 301 Frequency, Hz (CP-YIC-2)	17.9	17.2	16.6	19.8
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.6	3.7	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.2	3.8	3.4	5.8
Inlet Temp, DegF	62	62	61	60
Oxygen, %	0.2	0.3	0.3	0.4
Blower Speed, %	21	19	19	23
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	78	78	76	71
FLR Flame Temp, DegF	1414	1437	1391	1311
FLR Flow Press, In WC	1.9	1.8	1.9	1.6
FLR Flow Temp, DegF	66	64	63	69
Flow Rate, SCFM	85	82	85	75
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	34509	34653	34772	34960
Speed, %	21	19	19	23
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	66	64	63	69
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	85	85	84	82
Flame Temp, DegF	1385	1430	1385	1333
BLR Speed, %	21	19	19	23
Flow Pressure, In WC	1.9	1.8	1.9	1.6
Hour Meter	34504	34647	34768	34954

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	85	85	85	75
Today's Total, MMSCF	0.04	0.04	0.05	0.04
This Month's Total, MMSCF	1.28	1.98	2.56	3.47
Total Flow, MMSCF	181.04	181.74	182.33	183.22
Flow Press, In WC	1.9	1.8	1.9	1.6
Flow Temp, DegF	66	64	63	69
Flow Delta P, In WC	0.63	0.59	0.63	0.50
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.05	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	181.04	181.74	182.33	183.22
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	11/7/2017	11/14/2017	11/21/2017	11/28/2017
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Cloudy	Cloudy
Ambient Temperature, deg F	30	35	25	45
Inlet Temperature, deg F (GHS-TI-301)	56	54	54	54
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	4	6	5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	2	2	2	2
Discharge Temperature, deg F (GHS-TI-302)	62	63	60	66
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	10
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	2.0	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.2	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.3	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	19.5	17.8	20.6	19.4
Blower 301 Current, Amps (CP-YIC-2)	3.9	3.7	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	5.5	4.1	6.7	5.0
Inlet Temp, DegF	59	58	57	57
Oxygen, %	0.5	0.5	0.3	0.6
Blower Speed, %	23	20	25	22
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	72	76	70	79
FLR Flame Temp, DegF	1388	1416	1387	1440
FLR Flow Press, In WC	1.8	1.9	1.6	1.6
FLR Flow Temp, DegF	68	67	66	70
Flow Rate, SCFM	82	84	75	75
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	35130	35278	35466	35632
Speed, %	23	20	25	22
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	68	67	66	70
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	83	82	83	75
Flame Temp, DegF	1460	1405	1378	1405
BLR Speed, %	23	20	25	22
Flow Pressure, In WC	1.8	1.9	1.6	1.6
Hour Meter	35124	35292	35461	35627

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	82	84	84.0	76
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.70	1.52	2.33	3.15
Total Flow, MMSCF	184.04	184.86	185.68	186.49
Flow Press, In WC	1.8	1.9	1.6	1.6
Flow Temp, DegF	68	67	66	70
Flow Delta P, In WC	0.61	0.62	0.51	0.50
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
4 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	184.05	184.86	185.68	186.49
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester (Initials)	KSF	KSF	KSF	KSF
Date	12/4/2017	12/12/2017	12/19/2017	12/27/2017
Time	2:00 PM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Clear
Ambient Temperature, deg F	50	12	35	-10
Inlet Temperature, deg F (GHS-TI-301)	54	50	50	48
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	3.5	5	5	50
Demister Filter Delta P (GHS-PDI-301)	0.3	0.2	0.2	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	2	2	2	2
Discharge Temperature, deg F (GHS-TI-302)	64	54	60	50
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	11	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.7	1.5	2.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.4	1.2	1.5
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	0.3	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	16.4	19.8	19.3	19.1
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.9	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	2.9	5.8	5.5	5.9
Inlet Temp, DegF	56	54	54	52
Oxygen, %	0.6	0	0.4	0
Blower Speed, %	18	24	23	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	80	55	73	53
FLR Flame Temp, DegF	1407	1343	1342	1240
FLR Flow Press, In WC	1.9	1.8	1.6	0
FLR Flow Temp, DegF	68	59	64	54
Flow Rate, SCFM	84	83	76	80
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	35784	35969	36138	36332
Speed, %	18	24	23	24
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	67	59	64	54
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	75	83	83	75
Flame Temp, DegF	1429	1320	1377	1340
BLR Speed, %	18	24	23	24
Flow Pressure, In WC	1.9	1.8	1.6	1.5
Hour Meter	35778	35964	36133	36326

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WEEKLY FLARE STATION INSPECTION FORM

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Run Clock	On	On	On	On
Pilot	Off	Off	Off	Off
SD Valve	Open	Open	Open	Open
Flame	On	On	On	On
Relight	Off	Off	Off	Off
Pilot	Ready	Ready	Ready	Ready
Vac Ramp	Off	Off	Off	Off
Forced Flow	Off	Off	Off	Off
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	84	83	76	79
Today's Total, MMSCF	0.07	0.04	0.04	0.04
This Month's Total, MMSCF	0.35	1.29	2.11	3.04
Total Flow, MMSCF	187.22	188.13	188.96	189.89
Flow Press, In WC	1.9	1.8	1.6	1.5
Flow Temp, DegF	67	59	64	54
Flow Delta P, In WC	0.63	0.60	0.50	0.53
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.07	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
3 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
7 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	187.22	188.13	188.96	189.89
Reset Time	0	0	0	0
Reset Date	0	0	0	0
* **BACK & * BACK**				

	Adequate	Needs Work
Check Propane and Nitrogen Cylinders and change/fill if necessary	X	
Inspect Blower, Flare and Demister Structures for Loose Bolts/Cracks	X	
Drain Demister (if necessary)	X	
Clean Demister Filter Material (if dP indicates it is necessary)	X	
Lubricate Grease Fittings (as necessary)	X	
Test Alarm Lights on Panel by pushing "RUN" and "Alarm/Shutdown" Lamps	X	
Check if any shutdowns/alarms need re-setting (note which ones in comments section)	X	
Drain Flare Stack Condensate (if necessary)	X	

Comments: Drained Condensate

Signature: Kevin S. Fabel

* ***PUSH BUTTON***

Appendix B
Semi Annual Flare Station Maintenance Reports

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
BLOWER/FLARE SYSTEM		
- Check igniter gap (should be 0.1" - regap if necessary).	4/24/2017	Gap correct. Little bit of carbon build-up.
- Verify that the spark is at the tip of the igniter.	4/24/2017	Good spark
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	4/24/2017	All wiring in good shape
- Test pilot switch to verify pilot lights and it doesn't blow out.	4/24/2017	Good flame
- Check thermocouple voltage to verity the temperature reading.	4/24/2017	0.8 mV @ 65 deg F - good 25 mV @ 1,115 deg F - good
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	4/24/2017	Works
- Zero out all pressure, differential pressure, and vacuum gauges	4/24/2017	Zeroed all gauges at atmosphere
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	4/24/2017	Setpoints verified to be correct
- Verify flow transmitter calibration (via differential pressure).	4/24/2017	0.0" at 0 cfm, and 0.51" @ 75 cfm . Within specifications.
- Calibrate oxygen sensor.	4/24/2017	Calibrated zero and span. 10.6 mV at 20.8% O2.
- Remove demister sump clean-out cover and remove any accumulated debris	4/24/2017	Sump clean, demister is mostly dry.
- If pressure drop across the demister reaches two times (2X) the original value, remove demister element for inspection. (pressure wash element as necessary).	4/24/2017	Element in good shape - clean and dry
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	4/24/2017	Works
- Test the pilot fail shutdown (turn off propane supply)	4/24/2017	Works
- Test the high temperature shutdown while the flare is operating. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a high enough temp to test.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	4/24/2017	Works - opened oxygen sensor to atmosphere
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	4/24/2017	Throttled valve, shutdown verified to work
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	4/24/2017	Works - via induced vibration on sensor
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	4/24/2017	Works correctly
- Test the high inlet temperature failure (adjust PLC setpoint)	4/24/2017	Works - via setpoint change
- Test the high vacuum shutdown (adjust PLC setpoint)	4/24/2017	Works
- Test the low temperature shutdown. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a low enough temp to test.
- Inspect transmitter housings and piping. Replace O-rings, if necessary.	4/24/2017	All in good shape
- Inspect and clean the solenoid valve.	4/24/2017	In good shape
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	4/24/2017	Nothing arcing
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	NA	Included in October inspection
- Check for loose bolts on structure and flanges. Tighten, as necessary.	4/24/2017	None loose
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	4/24/2017	Filter clean
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	4/24/2017	Inspected - some discoloration, but element is clean
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	4/24/2017	Bearings in good shape. Spin easy and smooth.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
BLOWER/FLARE SYSTEM		
- Check igniter gap (should be 0.1" - regap if necessary).	10/23/2017	Gas is good.
- Verify that the spark is at the tip of the igniter.	10/23/2017	Good spark
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	10/23/2017	Wires look good
- Test pilot switch to verify pilot lights and it doesn't blow out.	10/23/2017	Good flame
- Check thermocouple voltage to verity the temperature reading.	10/23/2017	0.8 mV @ 71 deg F - good 32.7 mV @ 1,449 deg F - good
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	10/23/2017	Works
- Zero out all pressure, differential pressure, and vacuum gauges	10/23/2017	Done
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	10/23/2017	Setpoints correct, no adjustments necessary
- Verify flow transmitter calibration (via differential pressure).	10/24/2017	0.0" at 0 cfm, and 0.43" @ 75 cfm . Within specifications.
- Calibrate oxygen sensor.	10/24/2017	Calibrated zero and span. Sensor ok, spare in cabinet.
- Remove demister sump clean-out cover and remove any accumulated debris	10/23/2017	Sump is clean.
- If pressure drop across the demister reaches two times (2X) the original value, remove demister element for inspection. (pressure wash element as necessary).	10/23/2017	Element is clean and dry
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	10/23/2017	Added water, shutdown works
- Test the pilot fail shutdown (turn off propane supply)	10/23/2017	Works
- Test the high temperature shutdown while the flare is operating. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a high enough temp to test.

SEMI-ANNUAL INSPECTION AND MAINTENANCE FORM
FORMER HOLTZ KRAUSE LANDFILL

Inspector: Tom Hobday

The following items will be performed semi-annually by City personnel or an outside vendor:

Item	*Date Performed*	*Comments*
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	10/23/2017	Works
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	10/23/2017	Blower to manual, throttled inlet valve, shutdown verified
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	10/23/2017	Tapped on sensor, shutdown verified
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	10/23/2017	Works via closing nitrogen supply
- Test the high inlet temperature failure (adjust PLC setpoint)	10/23/2017	Works - via setpoint change
- Test the high vacuum shutdown (adjust PLC setpoint)	10/23/2017	Works
- Test the low temperature shutdown. (adjust PLC setpoint)	N/A	This is a non user-programmable set-point. Unable to get the flare to produce a low enough temp to test.
- Inspect transmitter housings and piping. Replace O-rings, if necessary.	10/24/2017	O-rings intact and re-greased. All in good shape
- Inspect and clean the solenoid valve.	10/23/2017	Working well
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	10/23/2017	Looks good
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	10/24/2017	All ok
- Check for loose bolts on structure and flanges. Tighten, as necessary.	10/24/2017	No loose bolts
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	10/23/2017	Filter clean, turned off AC for winter
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	10/23/2017	Some staining, but clean and dry
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	10/24/2017	Bearings in good shape. Spin easy and smooth.

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

Tester	T. Hobday		T. Hobday	
Date	4/24/17		10/23/17	
Time	13:50		15:40	
Sky Conditions	cloudy		cloudy	
Ambient Temperature, deg F	65°F		45°F	
Inlet Temperature, deg F (GHS-TI-301)	50°F		58°F	
Demister Inlet Valve Position, % Open (GHS-HV-301)	100%		100%	
LFG Vacuum, In WC (GHS-PI-301)	6"		3"	
Demister Filter Delta P (GHS-PDI-301)	0.3"		0.2"	
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100%		100%	
Discharge Pressure, In WC (GHS-PI-302)	1"		2"	
Discharge Temperature, deg F (GHS-TI-302)	66°F		62°F	
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	10"		8"	
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.9"		1.6"	
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5"		1.4"	
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4"		0.2"	
Blower 301 Frequency, Hz (CP-YIC-2)	19.0Hz		16.1Hz	
Blower 301 Current, Amps (CP-YIC-2)	3.7A		3.6A	

* ***PUSH BUTTON***

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

YIC-1 From Main Menu Screen	4/24/17		10/23/17	
ANALOG DATA MENU				
* **PROCESS OVERVIEW**				
Inlet Vacuum, In WC	4.9"		3.0"	
Inlet Temp, DegF	52° F		62°F	
Oxygen, %	0.2%		0.4%	
Blower Speed, %	22%		18%	
Blower Vibration, In/Sec	0.00"/sec		0.00"/sec	
CP Temp, DegF	77°F		79° F	
FLR Flame Temp, DegF	1430°F		1366° F	
FLR Flow Press, In WC	2.0"		1.8"	
FLR Flow Temp, DegF	69°F		66° F	
Flow Rate, SCFM	85 cfm		82 cfm	
* **BACK**				
* **BLOWER DATA**				
Status, Run/Stop	Run		Run	
Run Time, Hr	30473 hrs		34779 hrs	
Speed, %	22%		18%	
Vibration, In/Sec	0.00"/sec		0.00"/sec	
Outlet Temp, DegF	69°F		66° F	
* **BACK**				
* **FLARE DATA**				
Flow Rate, SCFM	85 cfm		82 cfm	
Flame Temp, DegF	1416°F		1403°F	
BLR Speed, %	22%		18%	
Flow Pressure, In WC	2.0"		1.8"	
Hour Meter	30468 hrs		34773 hrs	
Run Clock	On		On	
Pilot	Off		Off	

* ***PUSH BUTTON***

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

	4/24/17		10/23/17	
SD Valve	Open		Open	
Flame	On		On	
Relight	Off		Off	
Pilot	Ready		Ready	
Vac Ramp	Off		Off	
Forced Flow	Off		Off	
* **BACK**				
* **FLOW DATA**				
Flow Rate, SCFM	85 cfm		82 cfm	
Today's Total, MMSCF	0.0679977		0.0795345	
This Month's Total, MMSCF	2.618319		2.558620	
Total Flow, MMSCF	161.536		182.357	
Flow Press, In WC	2.0"		1.8"	
Flow Temp, DegF	69°F		66°F	
Flow Delta P, In WC	0.64"		0.58"	
* **7 DAY FLOW HISTORY**				
Yesterday's Flow, MMSCF	0.0679977		0.0795345	
2 Day's Ago Flow, MMSCF	0.1182656		0.1148986	
3 Day's Ago Flow, MMSCF	0.1138055		0.1197050	
4 Day's Ago Flow, MMSCF	0.1119362		0.1151709	
5 Day's Ago Flow, MMSCF	0.1139484		0.1155185	
6 Day's Ago Flow, MMSCF	0.1165944		0.1159643	
7 Day's Ago Flow, MMSCF	0.1140726		0.1215945	
* **BACK**				
* **RESETTABLE FLOW**				
Resettable Total Flow, MMSCF	1.61536		1.82357	
Reset Time	0:0:0		0:0:0	
Reset Date	0/00/00		0/00/00	
* **BACK**				

* ***PUSH BUTTON***

DAILY FLARE STATION DATA LOG

Project # 1728 Project Name: Holtz Krause (Min 30 SCFM, Max 200 SCFM)

* **BACK**				

* ***PUSH BUTTON***

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

* **START SPs**				
Pilot Enable, Secs	120 sec	4/24/17	120 sec	10/23/17
Pilot On Squence, Secs	10 sec	↓	10 sec	↓
Pilot Off Squence, Secs	3 sec	↓	3 sec	↓
Delay Blower Start, Secs	3 sec	↓	3 sec	↓
Delay Shutdown Valve Open, Secs	3 sec	↓	3 sec	↓
* **BACK**				
* **PILOT**				
FLR Pilot Assumed on Above This Temp, DegF	250° F	4/24/17	250°F	10/23/17
* **BACK**				
* **FLR RUN CLOCK**				
Start Time of Day, Hr.Min	0.00	4/24/17	0.00	10/23/17
On Cycle Duration, Mins	1440 min	↓	1440 min	↓
Off Cycle Duration, Mins	1 min	↓	1 min	↓
Cycles per Day	1	↓	1	↓
* **BACK**				
* **BACK**				
* **FLOW CALC**				
CH4%	31.0%	4/24/17	31.0%	10/23/17
O2%	0.1%	↓	0.1%	↓
CO2%	32.5%	↓	32.5%	↓
Elevation, Ft	1225 ft	↓	1225 ft	↓
Manual Input	0.975	↓	0.975	↓
* **BACK**				
* **OXYGEN CALIBRATION**				
* **BACK**				
* **ALARMS & SHUTDOWNS**				
* **INLET MENU**				
* **HIGH VACUUM**				
Alarm SP, In WC	52.0"	4/24/17	52.0"	10/23/17
Alarm Delay, Sec	45 sec	↓	45 sec	↓
Shutdown SP, In WC	55.0"	↓	55.0"	↓
Shutdown Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **INLET TEMPERATURE**				
Alarm SP, DegF	98°F	4/24/17	98°F	10/23/17

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Description	Setpoint	DATE	Setpoint	DATE
SETPOINT MENU				
* **VACUUM/FLOW**				
Vacuum/Flow	Flow	4/24/17	Flow	10/23/17
* **MANUAL/AUTO**				
Min % Speed	10%	4/24/17	10%	10/23/17
Auto/Manual	Auto	↓	Auto	↓
Manual % Speed	20%	↓	20%	↓
* **BACK**				
* **VACUUM CONTROL**				
* **SETPOINTS**				
Setpoint, In WC	5.0"	4/24/17	5.0"	10/23/17
Ramp Incriment, In WC	4.0"	↓	4.0"	↓
* **BACK**				
* **PID SPs**				
Gain	2.50	4/24/17	2.50	10/23/17
Sample Rate, Sec	0.50 sec	↓	0.50 sec	↓
Derative, Sec	0.01 sec	↓	0.01 sec	↓
Reset, Sec/Min	0.50 sec	↓	0.50 sec	↓
Deadband, In WC	0.5"	↓	0.5"	↓
* **BACK**				
* **BACK**				
* **FLOW CONTROL**				
* **SETPOINTS**				
Flow Control Setpoint, SCFM	80 cfm	4/24/17	80 cfm	10/23/17
* **BACK**				
* **PID SETPOINTS**				
Gain	0.80	4/24/17	0.80	10/23/17
Sample Rate, Sec	0.70 sec	↓	0.70 sec	↓
Derative, Sec	0.01 sec	↓	0.01 sec	↓
Reset, Sec/Min	1.10 sec	↓	1.10 sec	↓
Deadband, SCFM	5 cfm	↓	5 cfm	↓
* **BACK**				
* **BACK**				
* **BACK**				
* **FLARE MENU**				

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Alarm Delay, Sec	45 sec	4/24/17	45 sec	10/23/17
Shutdown SP, DegF	100°F	↓	100°F	↓
Shutdown Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **BACK**				
* **FLT-301 COND LEVEL**				
Shutdown Delay, Sec	35 sec	4/24/17	35 sec	10/23/17
* **BACK**				
* **BLOWER MENU**				
* **VIBRATION**				
Alarm SP, In/S	0.18 "/sec	4/24/17	0.18 "/sec	10/23/17
Alarm Delay, Sec	45 sec	↓	45 sec	↓
Shutdown SP, In/S	0.20 "/sec	↓	0.20 "/sec	↓
Shutdown Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **HIGH OUTLET GAS TEMP**				
Alarm SP, DegF	170°F	4/24/17	170°F	10/23/17
Alarm Delay, Sec	45 sec	↓	45 sec	↓
Shutdown SP, DegF	174°F	↓	174°F	↓
Shutdown Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **BACK**				
* **FLARE MENU**				
* **HIGH FLAME TEMP**				
Alarm SP, DegF	NA		NA	
Alarm Delay, Sec	↘		↘	
Shutdown SP, DegF				
Shutdown Delay, Sec	↘		↘	
* **BACK**				
* **LOW FLAME TEMP**				
Alarm SP, DegF	150°F	4/24/17	150°F	10/23/17
Alarm Delay, Sec	45 sec	↓	45 sec	↓
Restart ~~Shutdown~~ SP, DegF	200°F	↓	200°F	↓
Restart ~~Shutdown~~ Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **HIGH FLOW RATE**				

FLARE SYSTEM SETPOINTS

All Setpoints depend on Biogas Pressure and Flow

Project # 1728 Project Name: Holtz Krause Initials: T. Hobday

Alarm SP, SCFM	220 cfm	4/24/17	220 cfm	10/23/17
Alarm Delay, Sec	45 sec	↓	45 sec	↓
* **BACK**				
* **LOW FLOW RATE**				
Alarm SP, SCFM	35 cfm	4/24/17	35 cfm	10/23/17
Alarm Delay, Sec	35 sec	|	35 sec	|
Shutdown SP, SCFM	30 cfm	|	30 cfm	|
Shutdown Delay, Sec	35 sec	↓	35 sec	↓
* **BACK**				
* **FLARE RELIGHT**				
Relight Delay, Secs	600 sec	4/24/17	600 sec	10/23/17
Number of Relight Attempts	3	↓	3	↓
* **BACK**				
* **BACK**				
* **OXYGEN SENSOR**				
* **HIGH OXYGEN OE-301**				
Alarm SP, %	3.5%	4/24/17	3.5%	10/23/17
Alarm Delay, Sec	120 sec	|	120 sec	|
Shutdown SP, %	5.0%	|	5.0%	|
Shutdown Delay, Sec	120 sec	↓	120 sec	↓
* **BACK**				
* **BACK**				
* **UTILITY OUTAGE RESTART DELAY**				
System Restart Delay, Secs	60 sec	4/24/17	60 sec	10/23/17
* **BACK**				
* **PANEL TEMP**				
Low Temp Alarm SP, degF	35°F	4/24/17	35°F	10/23/17
Low Temp Alarm Delay, Sec	120 sec	|	120 sec	|
High Temp Alarm SP, degF	120°F	|	120°F	|
High Temp Alarm Delay, Sec	120 sec	↓	120 sec	↓
* **BACK**				
* **BACK**				
* **BACK**				

Appendix C
Monthly Site Inspection Forms

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 1-10-17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fraser

Date: 2.21.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 3.21.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Snow melted off site.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fraser

Date: 4-28-17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Spring Semi Annual Flare Pm Completed 4/25

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 5-16-17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)*	n	* needs mowing inside gate
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	y	n	
Fence around flare secured?	y	n	
Evidence of trespassers or encroachment?	y	n	
Illegal disposal/dumping present?	y	n	
Gas wells free of damage?	y	n	
Water mon wells secured/free of damage?	y	n	
Gas probes secured/free of damage?	y	n	
Flare station modem operational?	y	n	

Comments:

Asked DPW to mow inside gate

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 6.13.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fager

Date: 7-11-17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

DPW to mow inside gate Again

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fraser

Date: 8.8.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 9-12-17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Site Looks good all around

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 10·3·17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Full Flare PM to be completed 10/ /17.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Faber

Date: 11.21.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

Site in good shape. Ready for winter.

LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL

Inspector Kevin Fabel

Date: 12.15.17

Item	*Yes*	*No*	*Comments*
Cover intact and free of erosion?	(y)	n	
Vegetation cover intact?	(y)	n	
Is cover free of surface water ponding?	(y)	n	
Is cover free of exposed refuse?	(y)	n	
Is cover free of leachate seeps?	(y)	n	
Is cover free of animal burrows?	(y)	n	
Is cover free of noxious weeds?	(y)	n	
Is cover in need of mowing?	y	(n)	
Evidence of settlement of fill?	y	(n)	
Nuisance odors present?	y	(n)	
On-site access road drivable?	(y)	n	
Fence around flare secured?	(y)	n	
Evidence of trespassers or encroachment?	y	(n)	
Illegal disposal/dumping present?	y	(n)	
Gas wells free of damage?	(y)	n	
Water mon wells secured/free of damage?	(y)	n	
Gas probes secured/free of damage?	(y)	n	
Flare station modem operational?	(y)	n	

Comments:

About 3-4" of snow on site

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