



January 31, 2019

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 2018 through December 2018
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 1, 2018 through December 31, 2018.

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

A handwritten signature in black ink that reads "Thomas F. Hobday". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Thomas F. Hobday

TH/sb/4

Encl.

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



Annual Operation, Maintenance, and Monitoring Report January 2018 through December 2018

Former Holtz Krause Landfill
Wausau, Wisconsin

City of Wausau

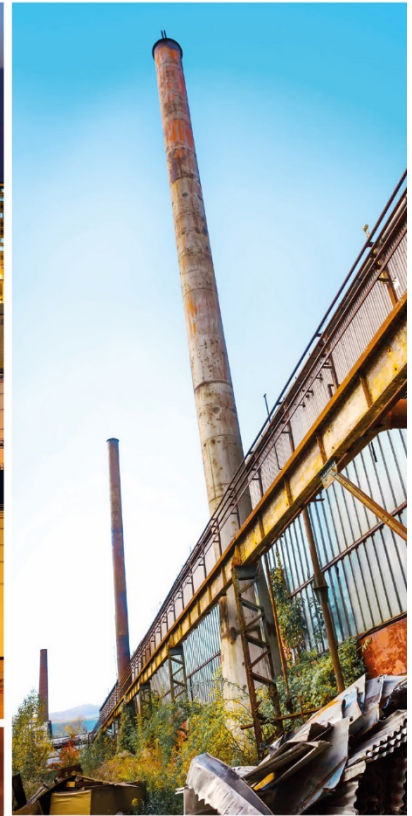




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1. Introduction

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 2018 through December 2018 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, and as modified by prior approval of the Wisconsin Department of Natural Resources (WDNR), the City is responsible for the following OM&M items:

- Weekly inspections of the flare station from April through September
- Every other week 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
- Monitoring and inspection of landfill gas extraction wells (gas composition, flow rate, header vacuum, and well condition) by the WDNR-approved revised monitoring schedule provided in Table 1.1, and as follows:
 - Annual monitoring for extraction wells that are always off (wells EW-1, EW-2, EW-8, EW-9, EW-11, EW-13, EW-14, EW-15, EW-22, EW-23, EW-24, EW-35, and EW-38), with the monitoring round split between the months of June and July.
 - Quarterly monitoring (February/March, May, August, and October/November) for extraction wells that are always on (wells EW-3, EW-7, EW-10, EW-18, EW-19, EW-21, and EW-31).
 - Monthly monitoring (April through September) and quarterly monitoring (October through March) for wells that are not consistently on or off (wells EW-4, EW-5, EW-6, EW-21, EW-30, EW-32, EW-33, EW-34, EW-36, and EW-37).
- 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 inspection of the flare station operation from April through September
- Every other week 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 from the reporting period 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 2018 and October 2018. The semi-annual maintenance reports are included in Appendix B.

2.2.1 Unscheduled Flare Station Shutdowns

During the reporting period (January 2018 through December 2018), the flare station experienced 11 unscheduled shutdowns. Details of the shutdowns are as follows:

- February 27, 2018: The flare station shut down due to a utility outage. The flare was restarted on March 1, 2018 once power was restored.
- March 5, 2018: The flare station shut down due to a flame fail caused by high winds. The flare station was restarted on March 6, 2018.
- May 20, 2018: The flare station shut down due to utility outage caused by a thunderstorm. The flare station was restarted on May 21, 2018 once power was restored.
- June 1, 2018: The flare station shut down due to a flame fail caused by high winds. The flare station was restarted on June 1, 2018.
- June 17, 2018: The flare station shut down due to utility outage caused by a thunderstorm. The flare station was restarted on June 18, 2018 once power was restored.
- June 23, 2018: The flare station shut down due to a flame fail. The flare station was restarted on June 24, 2018.
- July 8, 2018: The flare station shut down due to a flame fail. The flare station was restarted on July 8, 2018.
- July 13, 2018: The flare station shut down due to utility outage caused by a thunderstorm. The flare station was restarted on July 13, 2018 once power was restored.
- August 3, 2018: The flare station shut down due to a flame fail. The flare station was restarted on August 3, 2018.
- August 9, 2018: The flare station shut down due to utility outage caused by a thunderstorm. The flare station was restarted on August 9, 2018 once power was restored.
- September 13, 2018: The flare station shut down due to a flame fail. The flare station was restarted on September 14, 2018.

The flare station operated for 8,510 of the 8,760 available hours (97-percent) during the reporting period.

2.3 Gas Extraction Well Monitoring

The gas extraction well monitoring schedule was modified in 2018 according to the WDNR-approved revised monitoring schedule provided in Table 1.1. Wells which are always off are monitored annually in June and July. Wells which are always on are monitored quarterly. Wells which operate



intermittently are monitored on a monthly basis April through September, and on a quarterly basis October through March. Gas extraction well measurements consist 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) and static pressure. 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.

General maintenance items completed during the reporting period included:

- Erosion repairs (addition of rip-rap) to the landfill cover western slope in September 2018
- Replacement of the wellhead flow control valve for extraction well EW-24 in October 2018
- Site mowing as necessary

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 97-percent up-time from January 1, 2018 through December 31, 2018.
- The flare station controls allowed extraction amounts to closely match landfill production (approximately 80 cfm at 30 to 37-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 continuation of the revised gas monitoring frequency detailed in Table 1.1.

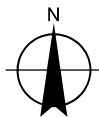
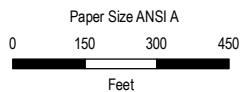
5. Recommendations

Based upon the consistent performance of the gas extraction and flare system, it is recommended that gas extraction well monitoring in 2019 continues under the revised monitoring scheduled, provided in Table 1.1, with the following revision:

- Transfer extraction well EW-24 from the “intermittent operation” list (monthly/quarterly monitoring) to the “always off” list (annual monitoring) based on 2018 and historical monitoring results.

LEGEND

-  GAS EXTRACTION WELL
-  GAS PROBE LOCATION
-  GAS EXTRACTION HEADER
-  SOCCER FIELD



**CITY OF WAUSAU
FORMER HOLTZ KRAUSE LANDFILL
WAUSAU, WISCONSIN**

Project No. 086120-18
Revision No. -
Date 01/15/2019

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

SITE PLAN

FIGURE 1.1

Table 1.1

**Revised Gas Extraction Well 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, 23, and 24) (July: EW-11, 13, 14, 15, 35, and 38)	13				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, 12, 17, 21, 30, 32, 33, 34, 36, and 37)	12	X	X	X	X	X	X	X	X

Table 2.1

Flare Station Operational Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

Date	Header Pressure (in H ₂ O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (°F)	Flare Temp (°F)	Status (on/off)	System Hours (hours)
1/2/2018	-4.0	36.9	33.8	0.2	83	51	1,429	on	36,475
1/9/2018	-5.8	N/R	N/R	N/R	80	51	1,387	on	36,641
1/16/2018	-5.8	34.8	33.1	0.2	79	50	1,352	on	36,809
1/23/2018	-5.9	N/R	N/R	N/R	76	50	1,355	on	36,978
1/31/2018	-3.9	37.1	33.8	0.2	77	50	1,361	on	37,171
2/6/2018	-6.4	N/R	N/R	N/R	75	48	1,284	on	37,314
2/13/2018	-4.2	N/R	N/R	N/R	84	48	1,389	on	37,482
2/20/2018	-4.6	35.6	31.5	0.1	80	48	1,318	on	37,649
2/27/2018	-5.0	N/R	N/R	N/R	82	48	1,346	on	37,818
3/7/2018	-5.1	36.2	31.1	0.1	80	48	1,351	on	37,947
3/13/2018	-5.3	N/R	N/R	N/R	75	48	1,320	on	38,091
3/20/2018	-5.0	N/R	N/R	N/R	80	48	1,360	on	38,256
3/27/2018	-4.1	36.3	32.0	0.2	75	48	1,380	on	38,426
4/3/2018	-5.0	N/R	N/R	N/R	76	48	1,511	on	38,590
4/10/2018	-5.9	N/R	N/R	N/R	79	47	1,428	on	38,759
4/17/2018	-5.5	N/R	N/R	N/R	78	47	1,330	on	38,926
4/24/2018	-5.0	34.2	30.0	0.3	77	47	1,471	on	39,094
5/1/2018	-4.4	N/R	N/R	N/R	76	49	1,400	on	39,262
5/8/2018	-5.3	33.5	29.2	0.4	77	50	1,329	on	39,430
5/15/2018	-8.3	N/R	N/R	N/R	75	52	1,343	on	39,597
5/22/2018	-6.9	N/R	N/R	N/R	76	53	1,362	on	39,745
5/29/2018	-8.3	N/R	N/R	N/R	83	54	1,371	on	39,914
6/5/2018	-7.9	30.2	29.4	0.3	77	56	1,340	on	40,076
6/12/2018	-8.4	N/R	N/R	N/R	80	56	1,213	on	40,243
6/19/2018	-8.4	N/R	N/R	N/R	76	58	1,150	on	40,398
6/26/2018	-8.6	N/R	N/R	N/R	82	58	1,337	on	40,533
7/3/2018	-9.6	30.4	27.9	0.3	81	60	1,249	on	40,701
7/10/2018	-7.8	N/R	N/R	N/R	67	62	1,246	on	40,855
7/17/2018	-8.5	N/R	N/R	N/R	68	62	1,318	on	41,016
7/24/2018	-7.7	N/R	N/R	N/R	67	63	1,282	on	41,180
7/31/2018	-6.3	N/R	N/R	N/R	65	67	1,282	on	41,336

Table 2.1

**Flare Station Operational Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin**

Date	Header Pressure (in H₂O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Flow Rate (scfm)	Inlet Gas Temp (°F)	Flare Temp (°F)	Status (on/off)	System Hours (hours)
8/7/2018	-7.0	32.8	29.6	0.3	65	69	1,250	on	41,486
8/14/2018	-3.9	N/R	N/R	N/R	85	63	1,433	on	41,613
8/21/2018	-4.3	N/R	N/R	N/R	79	63	1,385	on	41,801
8/28/2018	-4.3	N/R	N/R	N/R	78	64	1,310	on	41,968
9/4/2018	-3.9	N/R	N/R	N/R	81	64	1,349	on	42,136
9/11/2018	-4.1	34.0	30.5	0.3	76	63	1,248	on	42,303
9/18/2018	-4.5	N/R	N/R	N/R	80	64	1,386	on	42,439
9/25/2018	-3.5	N/R	N/R	N/R	75	64	1,312	on	42,608
10/2/2018	-4.1	35.9	31.5	0.2	76	62	1,284	on	42,775
10/9/2018	-3.2	N/R	N/R	N/R	80	61	1,498	on	42,944
10/16/2018	-2.8	N/R	N/R	N/R	84	61	1,315	on	43,117
10/22/2018	-3.7	N/R	N/R	N/R	77	59	1,361	on	43,255
10/30/2018	-2.8	N/R	N/R	N/R	84	58	1,381	on	43,446
11/6/2018	-2.6	35.7	31.8	0.5	78	58	1,372	on	43,614
11/13/2018	-4.0	N/R	N/R	N/R	81	56	1,361	on	43,782
11/20/2018	-3.9	34.1	31.5	0.6	84	55	1,329	on	43,952
11/27/2018	-3.9	N/R	N/R	N/R	82	54	1,355	on	44,118
12/4/2018	-4.1	33.3	30.6	0.7	84	54	1,275	on	44,287
12/11/2018	-3.5	N/R	N/R	N/R	76	53	1,338	on	44,455
12/18/2018	-3.4	34.8	30.7	0.6	83	52	1,331	on	44,623
12/26/2018	-4.3	N/R	N/R	N/R	79	52	1,296	on	44,817

Table 2.2

Landfill Gas Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (°F)	Flow Rate (scfm)	Header Pressure (in. H₂O)	Status (on/off)
Flare	1/2/2018	36.9	33.8	0.2	51	83	-4	On
Flare	1/16/2018	34.8	33.1	0.2	50	79	-5.8	On
Flare	2/1/2018	37.1	33.8	0.2	50	77	-3.9	On
Flare	2/20/2018	35.6	31.5	0.1	48	80	-4.6	On
Flare	3/7/2018	36.2	31.1	0.1	48	80	-5.1	On
Flare	3/27/2018	36.3	32.0	0.2	48	75	-4.1	On
Flare	4/24/2018	34.2	30.0	0.3	47	77	-5.0	On
Flare	5/8/2018	33.5	29.2	0.4	50	77	-5.3	On
Flare	6/5/2018	30.2	29.4	0.3	56	77	-7.9	On
Flare	7/3/2018	30.4	27.9	0.3	60	81	-9.6	On
Flare	8/7/2018	32.8	29.6	0.3	69	65	-7.0	On
Flare	9/11/2018	34.0	30.5	0.3	63	76	-4.1	On
Flare	10/2/2018	35.9	31.5	0.2	62	76	-4.1	On
Flare	11/6/2018	35.7	31.8	0.5	58	78	-2.6	On
Flare	11/20/2018	34.1	31.5	0.6	55	84	-3.9	On
Flare	12/4/2018	33.3	30.6	0.7	54	84	-4.1	On
Flare	12/18/2018	34.8	30.7	0.6	52	83	-3.4	On
EW-01	6/5/2018	1.3	6.8	13.5	58	0	-7.3	Off
EW-02	6/5/2018	19.5	25.9	0.6	55	0	-7.2	Off
EW-03	3/27/2018	42.3	30.7	0.2	45	8	-3.7	On
EW-03	5/8/2018	36.3	26.6	1.2	53	8	-4.6	On
EW-03	8/7/2018	39.1	30.5	0.4	57	17	-5.9	On
EW-03	10/2/2018	41.2	31.1	0.3	54	13	-3.0	On
EW-04	3/27/2018	31.4	28.3	0.1	42	0	-3.8	On
EW-04	4/24/2018	31.2	27.1	0.2	44	0	-4.3	On
EW-04	5/8/2018	30.6	26.6	0.4	49	6	-4.6	On
EW-04	6/5/2018	27.2	25.7	1.3	53	0	-7.3	Off
EW-04	7/3/2018	16.6	16.4	8.3	62	0	-8.6	Off
EW-04	8/7/2018	27.3	27.0	0.5	61	13	-5.1	On
EW-04	9/11/2018	28.9	26.9	1.3	58	6	-3.4	On
EW-04	10/2/2018	30.4	28.7	0.2	56	10	-3.0	On
EW-05	3/27/2018	25.9	25.6	0.2	46	0	-3.9	Off
EW-05	4/24/2018	20.5	23.5	0.3	46	0	-4.2	Off
EW-05	5/8/2018	18.6	22.8	0.4	50	0	-4.6	Off
EW-05	6/5/2018	16.8	21.1	1.9	55	0	-7.3	Off
EW-05	7/3/2018	17.2	19.7	3.2	62	0	-8.5	Off

Table 2.2

Landfill Gas Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (°F)	Flow Rate (scfm)	Header Pressure (in. H₂O)	Status (on/off)
EW-05	8/7/2018	23.9	23.1	0.9	61	6	-4.4	On
EW-05	9/11/2018	25.0	25.0	0.4	57	0	-3.5	On
EW-05	10/2/2018	25.1	25.8	0.2	55	0	-3.1	On
EW-06	3/27/2018	30.6	28.8	0.1	46	5	-3.8	On
EW-06	4/24/2018	26.5	27.0	0.1	50	6	-3.4	On
EW-06	5/8/2018	24.3	26.1	0.3	57	0	-4.9	Off
EW-06	6/5/2018	23.2	25.3	1.0	56	0	-7.1	Off
EW-06	7/3/2018	21.1	23.1	2.3	64	0	-8.4	Off
EW-06	8/7/2018	23.4	23.7	2.0	62	0	-4.2	Off
EW-06	9/11/2018	27.8	27.1	0.2	61	0	-3.4	On
EW-06	10/2/2018	30.1	27.9	0.1	57	6	-2.9	On
EW-07	3/27/2018	34.3	29.2	0.2	44	10	-4.0	On
EW-07	5/8/2018	36.2	28.0	0.4	55	8	-4.9	On
EW-07	8/7/2018	29.5	26.4	1.7	61	5	-4.1	On
EW-07	10/2/2018	35.0	29.6	0.2	56	8	-2.9	On
EW-08	6/5/2018	11.1	22.2	0.2	56	0	-7.2	Off
EW-09	6/5/2018	15.4	23.2	0.3	52	0	-7.1	Off
EW-10	3/27/2018	32.7	29.7	0.1	44	0	-4.0	On
EW-10	5/8/2018	31.2	27.4	0.3	52	8	-5.0	On
EW-10	8/7/2018	27.1	26.2	1.3	57	3	-4.1	On
EW-10	10/2/2018	31.9	28.9	0.2	55	4	-2.9	On
EW-11	7/3/2018	0.8	16.4	0.4	73	0	-8.4	Off
EW-12	3/27/2018	16.9	23.9	1.6	43	0	-4.7	Off
EW-12	4/24/2018	19.3	24.8	0.3	38	0	-4.2	Off
EW-12	5/8/2018	18.4	24.1	0.7	59	0	-5.0	Off
EW-12	6/5/2018	19.4	24.7	1.1	56	0	-7.2	Off
EW-12	7/3/2018	20.7	24.5	0.9	72	0	-8.3	Off
EW-12	8/7/2018	25.8	26.7	0.4	64	0	-4.2	Off
EW-12	9/11/2018	27.9	27.6	0.4	63	0	-3.1	On
EW-12	10/2/2018	30.0	29.0	0.2	57	0	-2.8	On
EW-13	7/3/2018	3.7	18.5	0.8	67	0	-8.4	Off
EW-14	7/3/2018	10.0	20.4	1.4	67	0	-8.3	Off

Table 2.2

Landfill Gas Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (°F)	Flow Rate (scfm)	Header Pressure (in. H₂O)	Status (on/off)
EW-15	7/3/2018	0.6	14.8	2.7	66	0	-8.3	Off
EW-17	3/27/2018	29.6	27.9	0.2	38	0	-3.7	On
EW-17	4/24/2018	27.9	26.8	0.6	42	0	-3.4	Off
EW-17	5/8/2018	23.9	25.2	0.5	50	0	-4.8	Off
EW-17	6/5/2018	20.9	20.5	4.5	57	0	-7.0	Off
EW-17	7/3/2018	30.1	23.6	1.9	67	8	-7.9	On
EW-17	8/7/2018	36.3	27.7	0.5	60	0	-4.3	On
EW-17	9/11/2018	34.5	29.5	0.3	60	3	-3.3	On
EW-17	10/2/2018	36.4	30.7	0.2	56	1	-2.9	On
EW-18	3/27/2018	39.9	31.9	0.3	44	14	-3.9	On
EW-18	5/8/2018	35.3	28.8	1.0	52	11	-4.8	On
EW-18	6/5/2018	31.4	26.1	4.1	54	1	-7.7	On
EW-18	8/7/2018	43.8	31.3	2.3	62	0	-4.3	On
EW-18	10/2/2018	49.2	34.3	2.4	55	0	-2.9	On
EW-19	3/27/2018	39.8	35.7	0.2	42	13	-2.8	On
EW-19	5/8/2018	32.5	29.8	1.9	54	7	-4.9	On
EW-19	6/5/2018	27.6	27.6	3.8	55	0	-8.0	Off
EW-19	8/7/2018	38.4	32.8	1.5	63	9	-3.8	On
EW-19	10/2/2018	42.5	35.9	0.4	53	24	-2.9	On
EW-20	3/27/2018	45.4	35.6	0.2	47	20	-4.1	On
EW-20	5/8/2018	35.1	28.1	3.7	52	11	-7.2	On
EW-20	6/5/2018	28.8	24.8	5.7	54	0	-7.5	Off
EW-20	8/7/2018	38.2	32.3	0.6	62	13	-2.6	On
EW-20	10/2/2018	44.1	35.5	0.2	54	13	-2.9	On
EW-21	3/27/2018	*	*	*	*	*	*	*
EW-21	4/24/2018	27.1	26.8	0.1	43	27	-3.1	On
EW-21	5/8/2018	24.9	25.2	0.8	51	0	-5.7	Off
EW-21	6/5/2018	20.9	24.4	1.3	57	0	-7.6	Off
EW-21	7/3/2018	17.9	20.0	4.5	67	0	-8.8	Off
EW-21	8/7/2018	27.6	27.8	0.1	78	5	-2.3	On
EW-21	9/11/2018	30.8	29.4	0.4	57	5	-3.4	On
EW-21	10/2/2018	32.8	29.8	0.3	54	6	-3.0	On
EW-22	6/5/2018	7.3	18.9	1.0	59	0	-7.8	Off

Table 2.2

Landfill Gas Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (°F)	Flow Rate (scfm)	Header Pressure (in. H₂O)	Status (on/off)
EW-23	6/5/2018	0.0	1.7	19.8	61	0	-7.7	Off
EW-24	4/24/2018	21.0	22.6	0.1	38	0	-4.2	Off
EW-24	5/8/2018	3.8	4.5	16.8	55	0	-5.8	Off
EW-24	6/5/2018	0.0	0.1	20.8	63	0	-7.7	Off
EW-24	7/3/2018	5.0	7.3	13.0	80	0	-8.9	Off
EW-24	8/7/2018	19.7	24.7	0.2	78	0	-2.6	Off
EW-24	9/11/2018	0.3	0.2	21.1	63	0	-3.4	Off
EW-24	10/2/2018	29.6	27.6	0.4	54	0	-3.0	Off
EW-30	3/27/2018	26.1	32.2	0.5	42	0	-4.2	Off
EW-30	4/24/2018	22.2	29.5	0.5	46	0	-3.9	Off
EW-30	5/8/2018	21.3	28.2	0.6	54	0	-5.3	Off
EW-30	6/5/2018	25.0	29.5	0.5	56	3	-7.8	On
EW-30	7/3/2018	15.1	20.7	5.8	63	0	-7.7	Off
EW-30	8/7/2018	27.1	30.8	0.3	64	0	-3.6	On
EW-30	9/11/2018	34.2	32.8	0.4	58	8	-3.2	On
EW-30	10/2/2018	37.0	34.4	0.3	55	27	-2.8	On
EW-31	3/27/2018	32.3	33.8	0.3	43	0	-3.8	On
EW-31	5/8/2018	26.0	29.0	1.7	54	8	-5.3	On
EW-31	6/5/2018	27.4	29.3	2.5	53	7	-8.1	On
EW-31	8/7/2018	31.3	31.6	0.9	58	0	-3.4	On
EW-31	10/2/2018	37.9	35.0	0.4	55	2	-2.9	On
EW-32	3/27/2018	18.0	30.5	0.0	32	0	-4.9	Off
EW-32	4/24/2018	*	*	*	*	*	*	*
EW-32	5/8/2018	6.0	10.6	12.0	57	0	-4.9	Off
EW-32	6/5/2018	16.2	25.8	0.3	58	0	-7.9	Off
EW-32	7/3/2018	7.5	21.4	2.3	70	0	-7.6	Off
EW-32	8/7/2018	25.3	28.8	0.3	67	0	-3.6	On
EW-32	9/11/2018	25.7	31.1	0.7	61	0	-3.3	On
EW-32	10/2/2018	29.4	33.3	0.2	54	12	-2.9	On
EW-33	3/27/2018	38.0	35.5	0.1	39	0	-3.7	On
EW-33	4/24/2018	28.4	31.5	0.1	41	6	-4.0	On
EW-33	5/8/2018	25.6	28.4	1.5	53	0	-5.5	Off
EW-33	6/5/2018	30.3	32.3	0.5	54	10	-7.2	On
EW-33	7/3/2018	14.9	23.2	4.5	62	0	-7.9	Off
EW-33	8/7/2018	32.2	34.2	0.3	67	0	-3.5	On
EW-33	9/11/2018	37.0	35.6	0.2	59	16	-3.3	On

Table 2.2

Landfill Gas Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp (°F)	Flow Rate (scfm)	Header Pressure (in. H₂O)	Status (on/off)
EW-33	10/2/2018	40.3	36.8	0.3	56	4	-2.8	On
EW-34	3/27/2018	6.3	7.2	17.7	36	0	-1.7	Off
EW-34	4/24/2018	19.9	26.1	2.7	39	0	-0.2	Off
EW-34	5/8/2018	21.7	27.9	0.6	52	0	-2.1	Off
EW-34	6/5/2018	23.7	30.2	0.3	58	0	-3.7	Off
EW-34	7/3/2018	14.9	24.4	2.3	71	0	-5.6	Off
EW-34	8/7/2018	27.9	33.0	0.2	71	0	0.0	On
EW-34	9/11/2018	0.2	0.1	21.3	60	0	-0.4	Off
EW-34	10/2/2018	42.5	36.9	0.6	54	18	-0.2	On
EW-35	7/3/2018	12.7	25.4	1.2	71	0	-5.2	Off
EW-36	3/27/2018	44.4	33.7	0.1	35	0	-0.8	On
EW-36	4/24/2018	39.5	31.4	0.2	42	0	-0.3	On
EW-36	5/8/2018	36.3	30.1	0.4	52	5	-1.4	On
EW-36	6/5/2018	33.5	30.1	0.4	57	2	-2.4	On
EW-36	7/3/2018	23.8	22.4	4.7	68	0	-4.0	Off
EW-36	8/7/2018	35.7	31.2	0.1	71	0	0.0	On
EW-36	9/11/2018	37.8	33.6	0.3	61	2	-0.9	On
EW-36	10/2/2018	39.5	34.6	0.3	57	15	-0.5	On
EW-37	3/27/2018	21.5	19.0	12.9	36	0	-0.9	Off
EW-37	4/24/2018	*	*	*	*	*	*	*
EW-37	5/8/2018	36.2	29.4	0.7	56	5	-1.4	On
EW-37	6/5/2018	28.1	33.2	0.5	57	6	-2.3	On
EW-37	7/3/2018	27.4	29.4	2.6	67	7	-3.5	On
EW-37	8/7/2018	35.9	35.3	0.4	70	0	-1.1	On
EW-37	9/11/2018	37.3	33.2	0.5	60	0	-0.9	On
EW-37	10/2/2018	39.8	34.9	0.2	55	0	-0.3	On
EW-38	7/3/2018	0.0	5.2	13.2	71	0	-8.3	Off

Notes:

* - Sample ports frozen or well underwater preventing readings

Table 2.3

**Landfill Gas Probe Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin**

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Static Pressure (in. H₂O)
GP-1S	3/20/2018	0.0	0.1	21.6	-0.2
GP-1S	5/15/2018	0.0	0.1	20.3	-0.2
GP-1S	7/6/2018	0.0	0.0	20.3	-0.1
GP-1S	10/9/2018	0.0	0.0	20.6	0.0
GP-1D	3/20/2018	0.0	0.1	21.9	-0.1
GP-1D	5/15/2018	0.0	5.1	13.6	-0.2
GP-1D	7/6/2018	0.0	0.0	20.2	-0.1
GP-1D	10/9/2018	0.0	8.9	8.8	-0.1
GP-2	3/20/2018	0.0	1.4	21.2	0.0
GP-2	5/15/2018	0.0	1.6	19.4	0.0
GP-2	7/6/2018	0.0	2.7	19.0	0.0
GP-2	10/9/2018	0.0	1.6	19.5	0.0
GP-3S	3/20/2018	0.0	0.1	22.5	-0.1
GP-3S	5/15/2018	0.0	0.1	20.0	0.0
GP-3S	7/6/2018	0.0	0.1	19.9	0.0
GP-3S	10/9/2018	0.0	0.5	20.3	0.0
GP-3D	3/20/2018	0.0	0.1	22.8	-0.1
GP-3D	5/15/2018	0.0	0.1	20.1	0.0
GP-3D	7/6/2018	0.0	0.0	20.0	-0.1
GP-3D	10/9/2018	0.0	0.9	20.0	-0.1
GP-5	3/20/2018	0.0	1.9	21.8	0.0
GP-5	5/15/2018	0.0	0.0	20.2	0.1
GP-5	7/6/2018	0.0	0.0	19.9	0.0
GP-5	10/9/2018	0.0	4.1	16.9	0.0
GP-6	3/20/2018	0.0	0.1	22.8	-0.1
GP-6	5/15/2018	0.0	0.0	20.5	-0.1
GP-6	7/6/2018	0.0	0.0	20.2	-0.1
GP-6	10/9/2018	0.0	1.3	20.2	0.0
GP-7R	3/20/2018	0.0	0.3	22.8	0.0
GP-7R	5/15/2018	0.0	0.7	19.9	0.0
GP-7R	7/6/2018	0.0	1.1	19.5	0.0
GP-7R	10/9/2018	0.0	0.1	20.8	0.0

Table 2.3

**Landfill Gas Probe Data
January 2018 through December 2018
Holtz Krause Closed Landfill - Wausau, Wisconsin**

ID	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Static Pressure (in. H₂O)
GP-10	3/20/2018	0.0	1.0	21.7	0.0
GP-10	5/15/2018	0.0	0.5	20.1	0.0
GP-10	7/6/2018	0.0	0.8	19.6	0.0
GP-10	10/9/2018	0.0	1.1	20.3	0.0
GP-11	3/20/2018	0.0	1.1	21.7	-0.1
GP-11	5/15/2018	0.0	0.1	20.5	-0.1
GP-11	7/6/2018	0.0	0.2	20.1	0.0
GP-11	10/9/2018	0.0	4.2	16.5	0.0
GP-12	3/20/2018	0.0	2.9	20.2	-0.1
GP-12	5/15/2018	0.0	1.5	19.3	0.0
GP-12	7/6/2018	0.0	2.3	18.6	0.0
GP-12	10/9/2018	0.0	5.3	14.2	0.0
GP-13	3/20/2018	0.0	0.1	22.7	0.0
GP-13	5/15/2018	0.0	0.2	20.2	0.0
GP-13	7/6/2018	0.0	0.7	19.6	0.0
GP-13	10/9/2018	0.0	1.3	19.8	0.0
GP-14	3/20/2018	0.0	0.1	22.8	0.0
GP-14	5/15/2018	0.0	0.1	20.4	0.0
GP-14	7/6/2018	0.0	0.2	20.0	0.0
GP-14	10/9/2018	0.0	5.8	11.8	0.0

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	1/2/2018	1/9/2018	1/16/2018	1/23/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Clear	Cloudy
Ambient Temperature, deg F	0	30	20	25
Inlet Temperature, deg F (GHS-TI-301)	47	48	46	46
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	3	5	5	5
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)	0.5	1.5	1	2
Discharge Temperature, deg F (GHS-TI-302)	48	58	50	53
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	10	8	12	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	3.5	1.7	1.7	1.6
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	3.0	1.4	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)	19.7	19.7	19.5	19.6
Blower 301 Current, Amps (CP-YIC-2)	3.9	3.9	3.9	3.9
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	4.0	5.8	5.8	5.9
Inlet Temp, DegF	51	51	50	50
Oxygen, %	0	0.3	0	0
Blower Speed, %	24	24	23	24
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	52	72	53	60
FLR Flame Temp, DegF	1429	1387	1352	1355
FLR Flow Press, In WC	0.1	1	0.1	1.6
FLR Flow Temp, DegF	51	61	57	58
Flow Rate, SCFM	83	80	79	76
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	36475	36641	36809	36978
Speed, %	24	24	23	24
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	51	61	57	58
* BACK				
* FLARE DATA				
Flow Rate, SCFM	82	80	80	80
Flame Temp, DegF	1411	1384	1330	1353
BLR Speed, %	24	24	23	24
Flow Pressure, In WC	0.1	1	0.1	1.6
Hour Meter	36469	36636	36804	36972

*** 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	78	80	80	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.12	0.92	1.73	2.55
Total Flow, MMSCF	190.59	191.39	192.2	193.01
Flow Press, In WC	0.1	1	0.1	1.6
Flow Temp, DegF	51	61	57	59
Flow Delta P, In WC	0.60	0.57	0.56	0.50
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	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	0.11	0.11	0.11	0.11
5 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
6 Day's Ago Flow, MMSCF	0.12	0.11	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	190.59	191.39	192.2	193.01
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	1/31/2018	2/6/2018	2/13/2018	2/20/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Cloudy
Ambient Temperature, deg F	25	5	25	30
Inlet Temperature, deg F (GHS-TI-301)	46	44	45	45
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	3.5	5	4	5
Demister Filter Delta P (GHS-PDI-301)	0.2	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)	2	2	2	2
Discharge Temperature, deg F (GHS-TI-302)	54	46	50	56
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	15	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6	1.6	2.0	1.8
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.3	1.5	1.3
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.3	1.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	17.1	20.1	17.4	18.2
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.9	3.9	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	3.9	6.4	4.2	4.6
Inlet Temp, DegF	50	48	48	48
Oxygen, %	0.4	0	0	0.3
Blower Speed, %	19	25	20	21
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	72	52	57	72
FLR Flame Temp, DegF	1361	1284	1389	1318
FLR Flow Press, In WC	1.6	1.6	1.8	1.7
FLR Flow Temp, DegF	59	50	55	60
Flow Rate, SCFM	77	75	84	80
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	37171	37314	37482	37649
Speed, %	19	25	20	21
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	59	50	55	60
* BACK				
* FLARE DATA				
Flow Rate, SCFM	76	77	75	81
Flame Temp, DegF	1347	1269	1379	1323
BLR Speed, %	19	25	20	21
Flow Pressure, In WC	1.6	1.6	1.8	1.7
Hour Meter	37166	37308	37476	37643

*** 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	76	75	85	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	3.48	0.59	1.39	2.2
Total Flow, MMSCF	193.95	194.64	195.46	196.26
Flow Press, In WC	1.6	1.6	1.8	1.7
Flow Temp, DegF	59	50	55	60
Flow Delta P, In WC	0.51	0.48	0.61	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	0.11	0.12	0.12
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
4 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
5 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	193.95	194.64	195.46	196.26
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	2/27/2018	3/7/2018	3/13/2018	3/20/2018
Time	10:00 AM	9:30 AM	10:00 AM	8:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	40	25	35	35
Inlet Temperature, deg F (GHS-TI-301)	46	44	45	44
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	4	4	4
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)	2	2	1.7	2
Discharge Temperature, deg F (GHS-TI-302)	60	50	52	54
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	11	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	2.0	1.5	1.6	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.5	1.3	1.3	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.2	0.3	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	18.6	18.7	18.6	18.6
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.9	3.9	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	5.0	5.1	5.3	5.0
Inlet Temp, DegF	48	48	48	48
Oxygen, %	0.6	0	0	0
Blower Speed, %	22	22	22	22
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	77	62	64	64
FLR Flame Temp, DegF	1346	1351	1320	1360
FLR Flow Press, In WC	1.8	1.7	1.6	1.7
FLR Flow Temp, DegF	61	57	57	58
Flow Rate, SCFM	82	80	75	80
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	37818	37947	38091	38256
Speed, %	22	22	22	22
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	61	57	57	58
* BACK				
* FLARE DATA				
Flow Rate, SCFM	82	79	80	80
Flame Temp, DegF	1337	1352	1333	1335
BLR Speed, %	22	22	22	22
Flow Pressure, In WC	1.8	1.7	1.6	1.7
Hour Meter	37813	37941	38085	38251

*** 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	82	79	76	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	3.02	0.52	1.21	2.02
Total Flow, MMSCF	197.09	197.71	198.4	199.19
Flow Press, In WC	1.8	1.7	1.6	1.7
Flow Temp, DegF	61	57	57	58
Flow Delta P, In WC	0.59	0.55	0.49	0.55
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.11	0.04	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	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
6 Day's Ago Flow, MMSCF	0.12	0.06	0.11	0.12
7 Day's Ago Flow, MMSCF	0.11	0.00	0.07	0.12
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	197.09	197.71	198.4	199.19
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	3/27/2018	4/3/2018	4/10/2018	4/17/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Clear	Cloudy
Ambient Temperature, deg F	40	25	35	35
Inlet Temperature, deg F (GHS-TI-301)	45	44	44	44
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	5	3.5	5	5
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)	2	2	2	2
Discharge Temperature, deg F (GHS-TI-302)	58	54	54	52
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	12	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6	1.5	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.0	1.0	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3	0.5	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	18.9	17.5	19.4	19
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.9	3.8	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	4.1	5.0	5.9	5.5
Inlet Temp, DegF	48	48	47	47
Oxygen, %	0.3	0.2	0.3	0.1
Blower Speed, %	19	21	23	23
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	73	68	70	69
FLR Flame Temp, DegF	1380	1511	1428	1330
FLR Flow Press, In WC	1.6	1.6	1.7	1.6
FLR Flow Temp, DegF	59	58	58	57
Flow Rate, SCFM	75	76	79	78
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	38426	38590	38759	38926
Speed, %	19	21	23	23
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	58	58	58	57
* BACK				
* FLARE DATA				
Flow Rate, SCFM	75	82	79	78
Flame Temp, DegF	1347	1508	1456	1358
BLR Speed, %	19	21	23	23
Flow Pressure, In WC	1.6	1.6	1.7	1.6
Hour Meter	38420	38584	38753	38920

*** 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	75	75	80	77
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	2.82	0.22	1.02	1.83
Total Flow, MMSCF	200.00	200.79	201.6	202.41
Flow Press, In WC	1.6	1.5	1.6	1.6
Flow Temp, DegF	59	58	58	57
Flow Delta P, In WC	0.50	0.50	0.56	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	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
5 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
6 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.12
7 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.12
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	200.00	200.79	201.6	202.41
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	4/24/2018	5/1/2018	5/8/2018	5/15/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	55	70	70	70
Inlet Temperature, deg F (GHS-TI-301)	45	47	48	49
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	6	8	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)	2	2	2	2
Discharge Temperature, deg F (GHS-TI-302)	58	68	67	68
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	12	8	11	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1	1.2	1.0	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	18.2	18.1	21.7	22.4
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.8	3.7	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	5.0	4.4	5.3	8.3
Inlet Temp, DegF	47	49	50	52
Oxygen, %	0.7	0.6	0.8	0.7
Blower Speed, %	21	20	22	28
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	77	80	82	79
FLR Flame Temp, DegF	1471	1400	1329	1343
FLR Flow Press, In WC	1.6	1.6	1.6	1.6
FLR Flow Temp, DegF	60	66	67	70
Flow Rate, SCFM	77	76	77	75
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	39094	39262	39430	39597
Speed, %	21	20	22	28
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	60	66	67	70
* BACK				
* FLARE DATA				
Flow Rate, SCFM	77	76	76	77
Flame Temp, DegF	1472	1404	1316	1343
BLR Speed, %	21	20	22	28
Flow Pressure, In WC	1.6	1.6	1.6	1.6
Hour Meter	39088	39256	39424	39592

*** 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	77	76	76	76
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	2.64	0.00	0.8	1.6
Total Flow, MMSCF	203.22	204.02	204.82	205.62
Flow Press, In WC	1.6	1.6	1.6	1.6
Flow Temp, DegF	60	66	67	70
Flow Delta P, In WC	0.52	0.51	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	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
4 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
5 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
6 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
7 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	203.22	204.02	204.82	205.62
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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				

*** 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	5/22/2018	5/29/2018	6/5/2018	6/12/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	65	80	65	70
Inlet Temperature, deg F (GHS-TI-301)	50	52	53	54
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	7	9	8	9.5
Demister Filter Delta P (GHS-PDI-301)	0.3	0.4	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)	70	72	69	74
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	13	10	9	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.8	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.5	1.0	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	20.9	22.6	22.2	22.5
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.7	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	6.9	8.3	7.9	8.4
Inlet Temp, DegF	53	54	56	56
Oxygen, %	0.6	1	0.9	0.9
Blower Speed, %	25	29	28	29
Blower Vibration, In/Sec	0.01	0.01	0	0.01
CP Temp, DegF	78	84	78	82
FLR Flame Temp, DegF	1362	1371	1340	1213
FLR Flow Press, In WC	1.6	1.9	1.6	1.8
FLR Flow Temp, DegF	68	75	72	76
Flow Rate, SCFM	76	83	77	80
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	39745	39914	40076	40243
Speed, %	25	29	28	29
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	68	75	72	76
* BACK				
* FLARE DATA				
Flow Rate, SCFM	76	83	75	80
Flame Temp, DegF	1361	1301	1327	1256
BLR Speed, %	25	29	28	29
Flow Pressure, In WC	1.6	1.9	1.6	1.8
Hour Meter	39739	39908	40070	40238

*** 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	76	75	76	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	2.31	3.11	0.44	1.24
Total Flow, MMSCF	206.33	207.14	207.92	208.72
Flow Press, In WC	1.6	1.9	1.6	1.8
Flow Temp, DegF	68	75	72	76
Flow Delta P, In WC	0.51	0.63	0.52	0.57
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.06	0.11	0.11	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	0.09	0.11
5 Day's Ago Flow, MMSCF	0.11	0.12	0.11	0.11
6 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
7 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	206.33	207.14	207.92	208.72
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	6/19/2018	6/26/2018	7/3/2018	7/10/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Cloudy	Clear	Clear
Ambient Temperature, deg F	70	65	80	75
Inlet Temperature, deg F (GHS-TI-301)	56	56	58	60
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	9	10	11.5	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)	2	2	1.5	1.2
Discharge Temperature, deg F (GHS-TI-302)	74	72	78	78
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	10	12	12
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.8	1.5	1.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.4	1.0	0.7
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.4	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	22.3	22.7	23.7	21.2
Blower 301 Current, Amps (CP-YIC-2)	3.9	3.7	3.7	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	8.4	8.6	9.6	7.8
Inlet Temp, DegF	58	58	60	62
Oxygen, %	0.7	0.6	1.1	1.2
Blower Speed, %	28	30	31	26
Blower Vibration, In/Sec	0	0.01	0.02	0.01
CP Temp, DegF	81	80	86	87
FLR Flame Temp, DegF	1150	1337	1249	1246
FLR Flow Press, In WC	1.6	1.9	1.9	1.3
FLR Flow Temp, DegF	77	75	80	81
Flow Rate, SCFM	76	82	81	67
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	40398	40533	40701	40855
Speed, %	28	30	31	26
Vibration, In/Sec	0.00	0.01	0.02	0.01
Outlet Temp, DegF	77	75	80	81
* BACK				
* FLARE DATA				
Flow Rate, SCFM	76	81	81	67
Flame Temp, DegF	1185	1320	1246	1239
BLR Speed, %	28	30	31	26
Flow Pressure, In WC	1.6	1.9	1.9	1.4
Hour Meter	40393	40328	40696	40849

* **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	76	83	82	67
Today's Total, MMSCF	0.04	0.04	0.04	0.03
This Month's Total, MMSCF	1.98	2.63	0.23	0.92
Total Flow, MMSCF	209.47	210.12	210.94	211.62
Flow Press, In WC	1.6	1.9	1.9	1.4
Flow Temp, DegF	77	75	80	81
Flow Delta P, In WC	0.52	0.62	0.61	0.41
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.04	0.04	0.05	0.03
2 Day's Ago Flow, MMSCF	0.10	0.04	0.12	0.03
3 Day's Ago Flow, MMSCF	0.12	0.04	0.12	0.10
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
7 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	209.47	210.12	210.94	211.62
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	7/17/2018	7/24/2018	7/31/2018	8/7/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Clear	Clear	Clear
Ambient Temperature, deg F	70	70	70	60
Inlet Temperature, deg F (GHS-TI-301)	60	60	64	66
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	10	8	7	7
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	1.5	1.5	1.5
Discharge Temperature, deg F (GHS-TI-302)	76	76	82	77
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	12	8	10	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.0	1.0	1.0	1.0
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	0.8	0.7	0.8	0.6
Flame Arrester Delta P, In WC (FLR-PI-301)	0.2	0.3	0.2	0.4
Blower 301 Frequency, Hz (CP-YIC-2)	22	21.2	19.6	20.5
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.7	3.6	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	8.5	7.7	6.3	7.0
Inlet Temp, DegF	62	63	67	69
Oxygen, %	1.2	1.2	1.3	1.6
Blower Speed, %	28	26	23	25
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	83	86	89	82
FLR Flame Temp, DegF	1318	1282	1282	1250
FLR Flow Press, In WC	1.4	1.3	1.3	1.3
FLR Flow Temp, DegF	79	81	86	83
Flow Rate, SCFM	68	67	65	65
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	41016	41180	41336	41486
Speed, %	28	26	23	25
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	79	81	86	83
* BACK				
* FLARE DATA				
Flow Rate, SCFM	68	68	65	65
Flame Temp, DegF	1346	1296	1278	1250
BLR Speed, %	28	26	24	25
Flow Pressure, In WC	1.4	1.3	1.3	1.3
Hour Meter	41010	41175	41331	41488

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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	68	67	65	65
Today's Total, MMSCF	0.03	0.03	0.03	0.03
This Month's Total, MMSCF	1.58	2.25	2.9	0.53
Total Flow, MMSCF	212.28	212.95	213.58	214.18
Flow Press, In WC	1.4	1.3	1.3	1.3
Flow Temp, DegF	79	81	86	83
Flow Delta P, In WC	0.41	0.41	0.39	0.39
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.03	0.03	0.03	0.03
2 Day's Ago Flow, MMSCF	0.10	0.09	0.10	0.10
3 Day's Ago Flow, MMSCF	0.10	0.10	0.10	0.10
4 Day's Ago Flow, MMSCF	0.07	0.09	0.08	0.06
5 Day's Ago Flow, MMSCF	0.10	0.10	0.10	0.10
6 Day's Ago Flow, MMSCF	0.10	0.10	0.09	0.10
7 Day's Ago Flow, MMSCF	0.10	0.10	0.10	0.07
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	212.28	212.95	213.58	214.18
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	8/14/2018	8/21/2018	8/28/2018	9/4/18
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Clear	Cloudy
Ambient Temperature, deg F	80	60	70	70
Inlet Temperature, deg F (GHS-TI-301)	60	60	62	61
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	6	6	6	6
Demister Filter Delta P (GHS-PDI-301)	0.4	0.4	0.3	0.4
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1.8	2	1.8	1.8
Discharge Temperature, deg F (GHS-TI-302)	74	72	76	74
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	12	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3	1.2	1.0	1.2
Flame Arrester Delta P, In WC (FLR-PI-301)	0.2	0.3	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	17.4	17.8	17.8	17.3
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.6	3.6	3.6
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	3.9	4.3	4.3	3.9
Inlet Temp, DegF	63	63	64	64
Oxygen, %	1.4	0.5	0.7	0.7
Blower Speed, %	20	21	20	20
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	97	81	85	83
FLR Flame Temp, DegF	1433	1385	1310	1349
FLR Flow Press, In WC	2	1.7	1.7	1.8
FLR Flow Temp, DegF	80	75	78	77
Flow Rate, SCFM	85	79	78	81
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	41613	41801	41968	42136
Speed, %	20	21	20	20
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	80	75	78	77
* BACK				
* FLARE DATA				
Flow Rate, SCFM	84	85	78	81
Flame Temp, DegF	1430	1382	1316	1333
BLR Speed, %	20	21	20	20
Flow Pressure, In WC	2	1.7	1.7	1.8
Hour Meter	41608	41795	41962	42130

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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	79	78	80
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.09	2.02	2.84	0.35
Total Flow, MMSCF	214.8	215.71	216.51	217.32
Flow Press, In WC	2	1.7	1.7	1.8
Flow Temp, DegF	80	75	78	77
Flow Delta P, In WC	0.65	0.56	0.55	0.59
* 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	0.11
3 Day's Ago Flow, MMSCF	0.08	0.12	0.11	0.12
4 Day's Ago Flow, MMSCF	0.04	0.11	0.12	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.09	0.12	0.12	0.11
7 Day's Ago Flow, MMSCF	0.10	0.12	0.12	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	214.8	215.71	216.51	217.32
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	9/11/2018	9/18/2018	9/25/2018	10/2/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Clear	Cloudy	Cloudy	Cloudy
Ambient Temperature, deg F	65	60	60	50
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)	4	4	4	4
Demister Filter Delta P (GHS-PDI-301)	0.3	0.4	0.3	0.4
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)	70	70	72	66
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	10	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.7	1.5	1.7
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.4	1.0	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.3	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	17.2	18.1	16.4	17.1
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.7	3.6	3.6
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	4.1	4.5	3.5	4.1
Inlet Temp, DegF	63	64	64	62
Oxygen, %	0.4	0.3	0.5	0.4
Blower Speed, %	19	21	18	19
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	78	79	81	77
FLR Flame Temp, DegF	1248	1386	1312	1284
FLR Flow Press, In WC	1.6	1.8	1.6	1.6
FLR Flow Temp, DegF	73	75	75	70
Flow Rate, SCFM	76	80	75	76
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	42303	42439	42608	42775
Speed, %	19	21	18	19
Vibration, In/Sec	0.0	0.0	0.0	0.0
Outlet Temp, DegF	73	75	75	70
* BACK				
* FLARE DATA				
Flow Rate, SCFM	75	76	76	76
Flame Temp, DegF	1240	1405	1375	1296
BLR Speed, %	19	21	18	19
Flow Pressure, In WC	1.6	1.8	1.6	1.6
Hour Meter	42297	42434	42603	42770

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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	80	76	76
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	1.16	1.8	2.61	0.12
Total Flow, MMSCF	218.13	218.77	219.59	220.39
Flow Press, In WC	1.6	1.8	1.6	1.6
Flow Temp, DegF	73	75	75	71
Flow Delta P, In WC	0.51	0.57	0.52	0.51
* 7 DAY FLOW HISTORY				
Yesterday's Flow, MMSCF	0.04	0.04	0.04	0.04
2 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.12
3 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.12
4 Day's Ago Flow, MMSCF	0.12	0.07	0.11	0.11
5 Day's Ago Flow, MMSCF	0.12	0.01	0.12	0.12
6 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.11
7 Day's Ago Flow, MMSCF	0.12	0.11	0.12	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	218.13	218.77	219.59	220.39
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	10/9/2018	10/16/2018	10/22/2018	10/30/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Clear	Cloudy
Ambient Temperature, deg F	60	45	35	40
Inlet Temperature, deg F (GHS-TI-301)	60	56	56	56
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4	3	4	3
Demister Filter Delta P (GHS-PDI-301)	0.3	0.3	0.3	0.3
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100.0	100	100	100
Discharge Pressure, In WC (GHS-PI-302)	1	1	1	0.8
Discharge Temperature, deg F (GHS-TI-302)	70	60	64	64
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	15	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.5	1.7
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.0	1.0	1.4
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.5	0.5	0.3
Blower 301 Frequency, Hz (CP-YIC-2)	16.2	15.9	16.6	16
Blower 301 Current, Amps (CP-YIC-2)	3.6	3.6	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	3.2	2.8	3.7	2.8
Inlet Temp, DegF	61	61	59	58
Oxygen, %	0.8	0.6	0.8	0.6
Blower Speed, %	18	17	18	17
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	83	80	75	74
FLR Flame Temp, DegF	1498	1315	1361	1381
FLR Flow Press, In WC	1.4	0.6	1.1	0.5
FLR Flow Temp, DegF	73	70	66	67
Flow Rate, SCFM	80	84	77	84
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	42944	43117	43255	43446
Speed, %	18	17	18	17
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	73	70	66	67
* BACK				
* FLARE DATA				
Flow Rate, SCFM	76	84	76	77
Flame Temp, DegF	1502	1339	1339	1377
BLR Speed, %	18	17	18	17
Flow Pressure, In WC	1.4	0.5	0.9	0.7
Hour Meter	42938	43112	43249	43440

*** 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	76	79	76	77
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.93	1.75	2.43	3.35
Total Flow, MMSCF	221.22	222.06	222.72	223.64
Flow Press, In WC	1.1	0.4	1	0.4
Flow Temp, DegF	73	70	66	67
Flow Delta P, In WC	0.56	0.62	0.52	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	0.11	0.11	0.11
3 Day's Ago Flow, MMSCF	0.11	0.11	0.11	0.11
4 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
5 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	221.22	222.06	222.72	223.64
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	11/6/2018	11/13/2018	11/20/2018	11/27/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Clear	Cloudy	Cloudy
Ambient Temperature, deg F	40	20	25	20
Inlet Temperature, deg F (GHS-TI-301)	54	52	52	50
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	2	4	4	4
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)	0.5	0.5	0.5	0.5
Discharge Temperature, deg F (GHS-TI-302)	62	54	56	53
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	10	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.5	1.5	1.8	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.0	1.3	1.4	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.5	0.2	0.4	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	15.5	17.4	17.3	17.3
Blower 301 Current, Amps (CP-YIC-2)	3.7	3.8	3.8	3.8
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	2.6	4.0	3.9	3.9
Inlet Temp, DegF	58	56	55	54
Oxygen, %	0.8	0	0.5	0
Blower Speed, %	16	20	20	20
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	74	58	68	60
FLR Flame Temp, DegF	1372	1361	1329	1355
FLR Flow Press, In WC	0.2	0.1	0.1	0.4
FLR Flow Temp, DegF	66	60	61	59
Flow Rate, SCFM	78	81	84	82
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	43614	43782	43952	44118
Speed, %	16	20	20	20
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	66	60	61	59
* BACK				
* FLARE DATA				
Flow Rate, SCFM	84	82	84	84
Flame Temp, DegF	1357	1363	1310	1305
BLR Speed, %	16	20	20	20
Flow Pressure, In WC	0.2	0.1	0.1	0.4
Hour Meter	43609	43777	43946	44112

* **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	78	81	84.0	82
Today's Total, MMSCF	0.04	0.04	0.04	0.04
This Month's Total, MMSCF	0.57	1.38	2.19	3.01
Total Flow, MMSCF	224.44	225.25	226.07	226.88
Flow Press, In WC	0.2	0.1	0.1	0.4
Flow Temp, DegF	66	60	61	59
Flow Delta P, In WC	0.54	0.59	0.62	0.58
* 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	0.11	0.12	0.11	0.12
5 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
6 Day's Ago Flow, MMSCF	0.11	0.11	0.12	0.12
7 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	224.44	225.25	226.07	226.88
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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	12/4/2018	12/11/2018	12/18/2018	12/26/2018
Time	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Sky Conditions	Cloudy	Cloudy	Clear	Clear
Ambient Temperature, deg F	20	25	35	25
Inlet Temperature, deg F (GHS-TI-301)	50	50	49	49
Demister Inlet Valve Position, % Open (GHS-HV-301)	100	100	100	100
LFG Vacuum, In WC (GHS-PI-301)	4	4	3	4
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)	1.8	0.5	1.6	1
Discharge Temperature, deg F (GHS-TI-302)	56	54	54	58
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	8	8	8	8
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.8	1.5	1.7	1.5
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.4	1.0	1.4	1.0
Flame Arrester Delta P, In WC (FLR-PI-301)	0.4	0.5	0.3	0.5
Blower 301 Frequency, Hz (CP-YIC-2)	17.7	16.4	16.7	17.5
Blower 301 Current, Amps (CP-YIC-2)	3.8	3.7	3.8	3.7
YIC-1 From Main Menu Screen				
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	4.1	3.5	3.4	4.3
Inlet Temp, DegF	54	53	52	52
Oxygen, %	0.8	0.4	0.3	1
Blower Speed, %	20	18	18	20
Blower Vibration, In/Sec	0	0	0	0
CP Temp, DegF	71	68	67	75
FLR Flame Temp, DegF	1275	1338	1331	1296
FLR Flow Press, In WC	1.9	0.1	1.8	1.7
FLR Flow Temp, DegF	60	59	58	61
Flow Rate, SCFM	84	76	83	79
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run	Run	Run	Run
Run Time, Hr	44287	44455	44623	44817
Speed, %	20	18	18	20
Vibration, In/Sec	0	0	0	0
Outlet Temp, DegF	60	59	58	61
* BACK				
* FLARE DATA				
Flow Rate, SCFM	84	75	76	83
Flame Temp, DegF	1257	1410	1341	1286
BLR Speed, %	20	18	18	20
Flow Pressure, In WC	1.9	0.1	1.8	1.1
Hour Meter	44281	44449	44618	44811

*** 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	84	76	84	78
Today's Total, MMSCF	0.04	0.03	0.04	0.04
This Month's Total, MMSCF	0.34	1.16	1.97	2.89
Total Flow, MMSCF	227.69	228.51	229.32	230.24
Flow Press, In WC	1.9	0.1	1.8	1.2
Flow Temp, DegF	61	59	58	61
Flow Delta P, In WC	0.62	0.50	0.61	0.54
* 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	0.11
3 Day's Ago Flow, MMSCF	0.12	0.12	0.12	0.12
4 Day's Ago Flow, MMSCF	0.11	0.12	0.12	0.11
5 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.12
6 Day's Ago Flow, MMSCF	0.12	0.11	0.11	0.11
7 Day's Ago Flow, MMSCF	0.12	0.12	0.11	0.11
* BACK				
* RESETTABLE FLOW				
Resettable Total Flow, MMSCF	227.69	228.51	229.32	230.25
Reset Time	-	-	-	-
Reset Date	-	-	-	-
* 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:

<i>Item</i>	<i>Date Performed</i>	<i>Comments</i>
<u>BLOWER/FLARE SYSTEM</u>		
- Check igniter gap (should be 0.1" - regap if necessary).	4/3/2018	Gap is correct
- Verify that the spark is at the tip of the igniter.	4/3/2018	Strong spark at correct location
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	4/3/2018	All wiring in good shape
- Test pilot switch to verify pilot lights and it doesn't blow out.	4/3/2018	Strong flame
- Check thermocouple voltage to verify the temperature reading.	4/3/2018	3.8 mV @ 210 deg F - good 33.4 mV @ 1,470 deg F - good
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	4/2/2018	Works
- Zero out all pressure, differential pressure, and vacuum gauges	4/2/2018	Zeroed all gauges at atmosphere
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	4/2/2018	Setpoints are correct
- Verify flow transmitter calibration (via differential pressure).	4/3/2018	0.0" at 0 cfm, and 0.48" @ 74 cfm . Within specifications.
- Calibrate oxygen sensor.	4/3/2018	Calibrated zero and span. 10.1 mV at 20.8% O2.
- Remove demister sump clean-out cover and remove any accumulated debris	4/2/2018	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).	4/2/2018	Element is clean and dry
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	4/3/2018	Added water to tee, correct operation verified
- Test the pilot fail shutdown (turn off propane supply)	4/3/2018	Works
- Test the high outlet temperature shutdown while the flare is operating. (adjust PLC setpoint)	4/3/2018	Works - via PLC setpoint change

**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:

<i>Item</i>	<i>Date Performed</i>	<i>Comments</i>
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	4/2/2018	Works - exposed oxygen sensor to atmosphere
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	4/2/2018	Throttled valve, shutdown verified to work
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	4/3/2019	Works - via induced vibration on sensor
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	4/3/2018	Works correctly
- Test the high inlet temperature failure (adjust PLC setpoint)	4/3/2018	Works - via setpoint change
- Test the high vacuum shutdown (adjust PLC setpoint)	4/3/2018	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.	4/3/2018	All in good shape, lubricated o-rings and threads
- Inspect and clean the solenoid valve.	4/3/2018	In good shape
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	4/3/2018	No issues
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	4/2/2018	All connections are secure
- Check for loose bolts on structure and flanges. Tighten, as necessary.	4/2/2018	None loose
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	4/3/2018	Filter clean
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	4/3/2018	Inspected - some discoloration, but element is clean and dry
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	4/2/2018	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:

<i>Item</i>	<i>Date Performed</i>	<i>Comments</i>
<u>BLOWER/FLARE SYSTEM</u>		
- Check igniter gap (should be 0.1" - regap if necessary).	10/18/2018	Gap is correct
- Verify that the spark is at the tip of the igniter.	10/18/2018	Good spark
- Inspect igniter wiring for heat damage, worn insulation and frayed wires.	10/18/2018	No damage noted
- Test pilot switch to verify pilot lights and it doesn't blow out.	10/18/2018	Good flame
- Check thermocouple voltage to verify the temperature reading.	10/18/2018	2.4 mV @ 150 deg F - good 25.1 mV @ 1,140 deg F - good
- Test blower and safety shutoff operation. The blower contactor/blower start operation and safety shutoff valves shall be fully tested.	10/18/2018	Works
- Zero out all pressure, differential pressure, and vacuum gauges	10/18/2018	Completed
- Check all components on the "set point sheet" to verify they have not changed. Make adjustments, if necessary.	10/18/2018	All setpoints are correct
- Verify flow transmitter calibration (via differential pressure).	10/18/2018	0.0" at 0 cfm, and 0.52" @ 83 cfm . Within specifications.
- Calibrate oxygen sensor.	10/18/2018	Calibrated zero and span. 10.3 mV at ambient - sensor ok, spare in cabinet.
- Remove demister sump clean-out cover and remove any accumulated debris	10/18/2018	Sump is clean, slightly damp
- If pressure drop across the demister reaches two times (2X) the original value, remove demister element for inspection. (pressure wash element as necessary).	10/18/2018	Element is clean
- Test demister condensate level switch (close level switch hand valve, and add water via tee to verify operation)	10/18/2018	Added water, shutdown works
- Test the pilot fail shutdown (turn off propane supply)	10/18/2018	Works correctly
- Test the high outlet temperature shutdown while the flare is operating. (adjust PLC setpoint)	10/18/2018	Works

**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:

<i>Item</i>	<i>Date Performed</i>	<i>Comments</i>
- Test the oxygen safety shutdown while the flare is operating. (open O2 lines to atm.)	10/18/2018	Works
- Test the low flow safety shutdown. (throttle blower inlet valve while in vacuum control)	10/18/2018	Blower to manual, throttled inlet valve, shutdown verified
- Test Blower Vibration alarm and shut down (adjust PLC setpoint)	10/18/2018	Lowered setpoint, induced vibration, works
- Test the inlet valve fail close shutdown while flare is operating. (closed nitrogen supply)	10/18/2018	Works
- Test the high inlet temperature failure (adjust PLC setpoint)	10/18/2018	Works
- Test the high vacuum shutdown (adjust PLC setpoint)	10/18/2018	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.	10/18/2018	All in good shape. Lubricated o-rings
- Inspect and clean the solenoid valve.	10/18/2018	In good shape
- Visually inspect for arcing contractor points. Check switches and contactors (annual).	10/18/2018	No issues
- Re-torque all electrical components. Double check at the thermocouple leads and the main power feed going to the blower (annual).	10/18/2018	All ok
- Check for loose bolts on structure and flanges. Tighten, as necessary.	10/18/2018	No loose bolts
- Remove, inspect, and clean if necessary air conditioner filter (semi-annually)	10/18/2018	Filter clean, turned off AC for winter
- Remove and inspect flame arrestor element (annually - or based on diff. pressure).	10/18/2018	Element is clean and dry
- Grease blower bearings - remove old grease, re-pack bearing per manufacturer specifications	10/18/2018	Slightly dirty on inlet side, flushed additional grease through bearings and repacked. Bearings still workings smoothly

DAILY FLARE STATION DATA LOG

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

Tester	T. Hobday	T. Hobday
Date	4/2/18	10/18/18
Time	13:30	13:20
Sky Conditions	cloudy	clear
Ambient Temperature, deg F	32°F	60°F
Inlet Temperature, deg F (GHS-TI-301)	44°F	58°F
Demister Inlet Valve Position, % Open (GHS-HV-301)	100%	100%
LFG Vacuum, In WC (GHS-PI-301)	2.5"	4"
Demister Filter Delta P (GHS-PDI-301)	0.3"	0.3"
Blower 301 Inlet Valve Position, % Open (GHS-FCV-301)	100%	100%
Discharge Pressure, In WC (GHS-PI-302)	2.0"	1.0"
Discharge Temperature, deg F (GHS-TI-302)	60°F	66°F
Propane Pilot Supply Pressure, In WC (GHS-PI-101)	9"	12"
Flame Arrester Inlet Pressure, In WC (FLR-PI-301)	1.6"	1.5"
Flame Arrester Outlet Pressure, In WC (FLR-PI-301)	1.3"	1.4"
Flame Arrester Delta P, In WC (FLR-PI-301)	0.3"	0.1"
Blower 301 Frequency, Hz (CP-YIC-2)	18.9 Hz	15.7 Hz
Blower 301 Current, Amps (CP-YIC-2)	3.8 A	3.7 A

* 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	4/2/18		10/18/18	
ANALOG DATA MENU				
* PROCESS OVERVIEW				
Inlet Vacuum, In WC	5.2"		2.7"	
Inlet Temp, DegF	47°F		61°F	
Oxygen, %	0.4%		0.4%	
Blower Speed, %	22%		17%	
Blower Vibration, In/Sec	0.00"/sec		0.00"/sec	
CP Temp, DegF	73°F		77°F	
FLR Flame Temp, DegF	1381°F		1386°F	
FLR Flow Press, In WC	1.8"		1.0"	
FLR Flow Temp, DegF	62°F		71°F	
Flow Rate, SCFM	82 cfm		84 cfm	
* BACK				
* BLOWER DATA				
Status, Run/Stop	Run		Run	
Run Time, Hr	38,575 hrs		43,165 hrs	
Speed, %	22%		17%	
Vibration, In/Sec	0.00"/sec		0.00"/sec	
Outlet Temp, DegF	62°F		71°F	
* BACK				
* FLARE DATA				
Flow Rate, SCFM	82 cfm		85 cfm	
Flame Temp, DegF	1391°F		1397°F	
BLR Speed, %	22%		17%	
Flow Pressure, In WC	1.8"		1.1"	
Hour Meter	38,570 hrs		43,160 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)

4/2/18

10/18/18

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	82 cfm	85 cfm
Today's Total, MMSCF	0.0610465	0.0673711
This Month's Total, MMSCF	0.118881	1.977067
Total Flow, MMSCF	200.725	222.289
Flow Press, In WC	1.8"	1.0"
Flow Temp, DegF	62°F	70°F
Flow Delta P, In WC	0.59"	0.63"
* 7 DAY FLOW HISTORY		
Yesterday's Flow, MMSCF	0.0610465	0.0673711
2 Day's Ago Flow, MMSCF	0.1142249	0.1163215
3 Day's Ago Flow, MMSCF	0.1168513	0.1190768
4 Day's Ago Flow, MMSCF	0.1134242	0.1133199
5 Day's Ago Flow, MMSCF	0.1180772	0.1139506
6 Day's Ago Flow, MMSCF	0.1126641	0.1202188
7 Day's Ago Flow, MMSCF	0.1167569	0.1127350
* BACK		
* RESETTABLE FLOW		
Resettable Total Flow, MMSCF	2.00725 e	2.22289 e
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

Description	Setpoint	DATE	Setpoint	DATE
SETPOINT MENU				
* VACUUM/FLOW				
Vacuum/Flow	Flow	4/2/18	Flow	10/18/18
* MANUAL/AUTO				
Min % Speed	10%	4/2/18	10%	10/18/18
Auto/Manual	Auto	↓	Auto	↓
Manual % Speed	20%	↓	20%	↓
* BACK				
* VACUUM CONTROL				
* SETPOINTS				
Setpoint, In WC	5.0"	4/2/18	5.0"	10/18/18
Ramp Increment, In WC	4.0"	↓	4.0"	↓
* BACK				
* PID SPs				
Gain	2.50	4/2/18	2.50	10/18/18
Sample Rate, Sec	0.50 sec	↓	0.50 sec	↓
Derivative, 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	4/2/18	80 cfm	10/18/18
* BACK				
* PID SETPOINTS				
Gain	0.80	4/2/18	0.80	10/18/18
Sample Rate, Sec	0.70 sec	↓	0.70 sec	↓
Derivative, 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				

All Setpoints depend on Biogas Pressure and Flow

Project # 1728

Project Name: Holtz Krause

Initials:

T. Hobday

* START SPs				
Pilot Enable, Secs	120 sec	4/2/18	120 sec	10/18/18
Pilot On Sequence, Secs	10 sec		10 sec	
Pilot Off Sequence, 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	4/2/18	250°F	10/18/18
* BACK				
* FLR RUN CLOCK				
Start Time of Day, Hr.Min	0.00	4/2/18	0.00	10/18/18
On Cycle Duration, Mins	1440 mins		1440 min	
Off Cycle Duration, Mins	1 min		1 min	
Cycles per Day	1	↓	1	↓
* BACK				
* BACK				
* FLOW CALC				
CH4%	31.0%	4/2/18	31.0%	10/18/18
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"	4/2/18	52.0"	10/18/18
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	4/2/18	98°F	10/18/18

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	4/2/18	45 sec	10/18/18
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	4/2/18	35 sec	10/18/18
* BACK				
* BLOWER MENU				
* VIBRATION				
Alarm SP, In/S	0.18 "/sec	4/2/18	0.18 "/sec	10/18/18
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	4/2/18	170°F	10/18/18
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	4/2/18	150 °F	10/18/18
Alarm Delay, Sec	45 sec	↓	45 sec	↓
Shutdown SP, DegF	200 °F	↓	200 °F	↓
Shutdown Delay, Sec	45 sec	↓	45 sec	↓
* BACK				
* HIGH FLOW RATE				

All Setpoints depend on Biogas Pressure and Flow

Project # 1728

Project Name: Holtz Krause

Initials: T. Hobday

Alarm SP, SCFM	220 cfm	4/2/18	220 cfm	10/18/18
Alarm Delay, Sec	45 sec	↓	45 sec	↓
* BACK				
* LOW FLOW RATE				
Alarm SP, SCFM	35 cfm	4/2/18	35 cfm	10/18/18
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	4/2/18	600 sec	10/18/18
Number of Relight Attempts	3	↓	3	↓
* BACK				
* BACK				
* OXYGEN SENSOR				
* HIGH OXYGEN OE-301				
Alarm SP, %	3.5%	4/2/18	3.5%	10/18/18
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	4/2/18	60 sec	10/18/18
* BACK				
* PANEL TEMP				
Low Temp Alarm SP, degF	35 °F	4/2/18	35 °F	10/18/18
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**

Kevin FASCE

Inspector

Date:

1.9.18

<u>Item</u>	<u>Yes</u>	<u>No</u>	<u>Comments</u>
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**

Kevin Fabel

Inspector

Date:

2.6.18

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

Comments:

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Faber

Inspector

Date:

3.6.18

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

Comments:

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Fager

Inspector

Date:

4.17.18

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

Comments:

* 18" of snow. Record April Snow Fall

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Paez

Inspector

Date:

5.7.18

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

Comments:

* EW-24 valve handle needs repair
 valve stuck shut
 * Will be repaired during Oct Service Visit

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Faber

Inspector

Date:

6.12.18

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

Comments:

Site looks in good shape.

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Fisher

Inspector

Date:

7.10.12

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

Comments:

Very Hot Humid Weather

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Fisher

Inspector

Date:

8.7.18

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

Comments:

* Recently mowed. Will mow again in fall

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Fisher

Inspector

Date:

9-11-18

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

Comments:

* Some Erosion on West Side draining to ditch by road - repairs made - rip rap & drain fabric to slow up runoff area.

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

KEVIN FAGER

Inspector

Date:

10-9-18

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

Comments:

Rip Rap Repairs look good.

**LANDFILL SITE INSPECTION
FORMER HOLTZ KRAUSE LANDFILL**

Kevin Fabel

Inspector

Date:

11.13.18

<u>Item</u>	<u>Yes</u>	<u>No</u>	<u>Comments</u>
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**

Kevin Fagot

Inspector

Date:

12.18.18

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

Comments:

* Nice Warm Day 40° - 1-2" of snow on site



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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