2024 Oily Water Sewer Progress Report

bp Cherry Point Refinery

Blaine, Washington

March 31, 2025

CONTENTS

1. INTRODUCTION 3

1.1 General Site Information 3
1.2 Contact Information 3

2. 2024 OILY WATER SEWER INSPECTION 4

2.1 Deviations from the IRP 4
2.2 Additional 2024 Inspection Activity 5

2.2.1 MH 40-82 to MH 40-29 5
2.2.2 MH 40-35 5
2.2.3 MH 40-36 6
2.2.4 MH 40-21 to 40-22 6

3. AREA OF CONCERN-1 6

4. AREA OF CONCERN-2 7

5. DEFECT RATING OF THREE OR GREATER 9

5.1 MH 32-10 to 32-9 9
5.2 MH 40-21 to 40-22 11
5.3 MH 32-4 13

6. CONCLUSION 13

ATTACHMENT 1 OILY WATER SEWER MAIN TRUNK LINES

ATTACHMENT 2 OILY WATER SEWER RATING MATRIX

ATTACHMENT 3 INSPECTION RECORDS AND DEFECT SUMMARY

Acronyms and Abbreviations

AO	Agreed Order No. DE 16296
API	American Petroleum Institute
BAI	Berry Acres, Incorporated
bp	BP West Coast Products LLC
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
Ecology	Washington State Department of Ecology
IRP	Investigation and Response Plan
MACP	Manhole Assessment and Certification Program
MTCA	Model Toxics Control Act
MH	Manhole
NASSCO	National Association of Sewer Service Companies
NPDES	National Pollutant Discharge and Elimination System
OWS	Oily Water Sewer
PACP	Pipeline Assessment and Certification Program
WWTP	Wastewater Treatment Plant

1. INTRODUCTION

Per Agreed Order DE 16296, bp Cherry Point, located at 4519 Grandview Road, Blaine, WA, submits annually to Ecology the Oily Water Sewer (OWS) Summary Report, which includes findings and actions from the years' camera inspection of sections of the onsite OWS.
This progress report has been prepared in accordance with the requirements in section VII.C of Agreed Order No. DE 16296 (AO). The AO was entered into by the Washington State Department of Ecology (Ecology) and bp Cherry Point Refinery on August 1, 2020. The objective of the AO is to address soil or groundwater contamination resulting from releases from the OWS at the Cherry Point Refinery.

1.1 General Site Information

BP Products North America, Inc. (bp) owns and operates the bp Cherry Point Refinery, located in Whatcom County, Washington. It is located about seven miles south of Blaine and eight miles northwest of Ferndale, Washington, on the Strait of Georgia between Birch Bay and Lummi Bay. Construction of the refinery was completed in 1971 and the refinery currently processes over 225,000 barrels of petroleum crude oil per day. The oily water sewer lines convey process water, stormwater from process areas and fire water to an onsite wastewater treatment plant (WWTP), located in the northwest corner of the property, near the intersection of Grandview and Jackson Roads.

1.2 Contact Information

Contact information for the Ecology site manager and property owner/facility operator are included below.

- Ecology Site Manager: Liem Nguyen
  - Address: PO Box 47600 Olympia, WA 98504
  - Phone: (360) 790-4730
  - Email: liem.nguyen@ecy.wa.gov
- Property Owner/Facility Operator: bp Cherry Point Refinery
  - Address: 4519 Grandview Road, Blaine, WA 98230
  - Contact: Ken Taylor, Environmental Superintendent
  - Phone: (219) 370-3310
  - Email: Kenard.Taylor@bp.com

2. 2024 OILY WATER SEWER INSPECTION

Section VII.C.2 requires bp Cherry Point to report the findings of the sewer assessment including an assessment of the general condition of the OWS system components, the location and description of any problems identified and their cause, and a description of actions taken or planned to repair or maintain system components based on the results of the testing.

Berry Acres Incorporated (BAI) completed the 2024 video inspections from August through December 2024. The OWS segments inspected in 2024 include the OWS main trunk lines from MH 32-10 through 32-8 and MH 32-3 to MH 32-12. A map of the completed 2024 inspection activities is provided as Attachment 1: Oily Water Sewer Main Trunk Lines.

All sections of the OWS were isolated in preparation for cleaning and inspection. Pipes were cleaned by hydraulic jetting as needed until all surfaces of the pipe were visible for the camera inspection. Manholes were cleaned by fire water washing and vacuumed until all surfaces were visible for the camera inspection.

The cleaned sections were inspected using an inspection camera in general accordance with the National Association of Sewer Service Companies (NASSCO) guidelines by a contractor's certified sewer inspection technician. Camera inspection reports were reviewed by the NASSCO operator to identify any irregularities that would indicate potential releases. Summary findings from the inspection activities were then shared and discussed with the OWS team.

Pipeline Assessment and Certification Program (PACP) and Manhole Assessment and Certification Program (MACP) reports were generated for each inspection section. Each sewer defect observed was categorized as either a structural defect (e.g.: a crack, fracture, joint offset) or an operational and maintenance defect (e.g.: deposits impeding flow) and given a NASSCO condition grade by the NASSCO certified sewer inspector. For each section of sewer, or for each manhole observed, the number of defects observed, the condition grade they were given, and whether they were structural or operations and maintenance, were summarized in a rating for that section. Each section was then assigned an overall rating index for both structural and operations and maintenance defects. Observed defects are summarized and included with the inspection records.

The overall rating index was then compared to the OWS Rating Matrix and if identified, sampling and/or remediation efforts were undertaken.

A recording of all camera inspections has been retained.

2.1 Deviations from the IRP

Not all the OWS segments scheduled for inspection in 2024 were conducted. Section VII.C.1 of Agreed Order No. DE 16296 requires bp Cherry Point to report any deviations from the Investigation and Response Plan. A summary is provided below. See Attachment 1: Oily Water Sewer Main Trunk Lines for a map showing the 2024 deviations from the IRP.

Sections from MH 32-87 to where this line ties into the main trunk line, just adjacent MH 32-6 was not inspected as was planned on the 2024 work. The bulk of the 2024 OWS inspection work took place in October, November and December and the inspection of this line was not complete by the end of 2024.

Inspection from MH 32-6 to 32-1 stopped short at the 90 degree turn in the pipe as conditions made it difficult for the camera to navigate the corner. Because of riser connections and an assortment of pipes connect to it, it was impractical to remove the downstream manhole, 32-1, during this inspection activity. Therefore, the section from the 90 degree turn to MH 32-1 was not completed in 2024.

A valve is located halfway between MH 32-11 and MH 32-13, near the API inlet. Although the entire line from MH 32-11 to MH 32-13 was isolated, cleaned and prepped for inspection, it was discovered during review of the camera footage that inspection of the section from the valve to MH 32-11 was not conducted as part of the 2024 inspection activities.

Inspection of these sections is planned for 2025 and results of these inspections will be included in a future summary report.

2.2 Additional 2024 Inspection Activity

Inspection work was conducted on sections of the OWS during 2024 that were not originally planned for assessment in 2024 and this work is detailed below. PACT and MACT Inspection Forms, along with Overall Manhole and Line Ratings, and a final Rating Index are included in Attachment 3: Inspection Records and Defect Summary. A summary of this activity is listed below.

2.2.1 MH 40-82 to MH 40-29

This section of OWS was originally identified in the 2021 inspection scope. However, due to pipe diameter and baffle design, this line contained sections of inaccessible pipe. A smaller and more suitable camera was purchased, and inspection of this line was undertaken as part of the 2022 work.

In 2022, inspection of this section ran from MH 40-82 towards MH 40-29, but stopped 20’ short of reaching MH 40-29 due to water from the liquid seal in the main trunk line preventing camera inspection of the remaining portion. Inspection of the remaining 20’ of the line reaching towards MH 40-29 was conducted in August 2024.

Using NASSCO guidelines, the line was given a structural rating of zero and an O&M rating of 1.75. When evaluated against the OWS Rating Matrix, this line did not trigger confirmation soil sampling as no evidence of a potential leak was observed and the structural integrity of the line was not at risk. This information was documented in the refinery records and video files were retained.

2.2.2 MH 40-35

MH 40-35 was part of the OWS 2023 work. During the 2023 inspection activity, the camera operator observed that there was an accumulation of debris, including rocks and gravel, obscuring a complete view of the bottom of the vault.

Although there are no structural concerns nor evidence of a release or threatened release observed, because the bottom of the manhole was not completely visible to the camera operator, this manhole was identified to be reinspected at a future date. Inspection of this manhole took place in September 2024.

Using NASSCO guidelines, the manhole was given a structural rating of zero and an O&M rating of 2. When evaluated against the OWS Rating Matrix, this line did not trigger confirmation soil sampling as no evidence of a potential leak was observed and the structural integrity of the line was not at risk. This information was documented in the refinery records and video files were retained.

2.2.3 MH 40-36

MH 40-36 was part of the OWS 2023 work. During the 2023 inspection activity, the camera operator observed that there was approximately 6” of water in the bottom of this manhole, which prevented the inspection of the bottom-most portion. The portion of the manhole visible from the top down to the water line near the bottom is epoxy lined and appeared in good repair, without defects or missing sections of liner.

Although there are no structural concerns or evidence of a release or threatened release observed, because the bottom of the manhole was not completely visible to the camera operator, it was identified to be reinspected at a future date. Inspection of this manhole took place in September 2024.

Using NASSCO guidelines, the manhole was given a structural rating of zero and an O&M rating of zero. Per the OWS Rating Matrix, this information was documented in the refinery records and video files were retained.

2.2.4 MH 40-21 to 40-22

MH 40-21 to 40-22 was part of the OWS 2021 work. It was discovered that, although the 2021 PACP Inspection Form was retained, video record was not. Reinspection of this line occurred in August 2024.

Using NASSCO guidelines, this line was given a structural rating of 3 and an O&M rating of zero. Additional information on the section from MH 40-21 to MH 40-22 is given in section 2.3.2 below.

Per the OWS Rating Matrix, this information was documented in the refinery records and video files were retained.

PACT reports from both the 2021 and 2024 inspection activity noted no conditions that would indicate a release or a potential release. Video was saved from the 2024 inspection activity confirming the results of the inspection.

3. AREA OF CONCERN-1

Area of Concern-1 (AOC-1) is located approximately 48’ downstream of MH 32-10. The line from MH 32-10 to MH 32-9 is located adjacent to tank 320 near the refinery’s WWTP. It is located, along with tank 323, in a tank dike as noted on Attachment 1: Oily Water Sewer Main Trunk Lines. This line is a 6” unlined steel pipe that conveys material to the refinery’s WWTP. The contents of this line are mainly rainwater from the tank dike area and occasionally oily residue from tank 323 bottoms during cleaning activities. Evidence of groundwater intrusion through the bottom of the pipe is visible throughout the line during the video inspection.

Using NASSCO guidelines, and shown in Attachment 3: Inspection Records and Defect Summary, the Overall Line Rating for MH 32-10 to 32-9 was given a structural rating index of 2.45 and an O&M rating of 1.97, neither of which indicates confirmation sampling per our OWS Rating Matrix. However, the defect

noted at 48' downstream of MH 32-9 has an individual rating of 5 and will be investigated as a potential OWS release.

Figure 1: *Video still showing water infiltration approximately 48' downstream of MH 32-10. OWS Matrix Rating of 5.*

Actions pertaining to investigating this suspected release were initiated in early 2025. Investigation of AOC-1 will be conducted and reported in line with the IRP section "Procedures for Determining Whether a Release Has Occurred." If a release is confirmed, bp Cherry Point will provide notification to Ecology as detailed the "Release Reporting" section of the IRP. Sampling and confirmation of any suspected or actual release from this defect will also be included as part of the 2025 Annual Progress Report.

4. AREA OF CONCERN-2

Area of Concern-2 (AOC-2) is located in MH 32-4 and can be located on Attachment 1: Oily Water Sewer Main Trunk Lines. It is a fracture in an unlined concrete manhole, approximately 6" in length and located on the southwest side, directly above the outlet pipe. MH 32-4 is located just west of the WWTP Clarification Ponds, in the roadway running between WWTP and the Clarification Ponds. It conveys mainly rainwater and intermittent flow from an OWS area drain located south of the aeration basin, as well as oil-skimmed influent to the Stormwater Surge Pond.

During heavy rain events, the main OWS line to the inlet of the APIs can accumulate material at MH 32-12. MH 32-12 can spill over into MH 32-4, causing it to act as an equalization area and can remain liquid full until volume of the system has effectively been transferred to the APIs. For this reason, the high-water mark

in the manhole is above the outlet pipe in MH 32-4. Because the high-water mark is above the location of the fracture, the manhole is not lined to protect the concrete structure, and the service of this line can contain high hydrocarbon and/or benzene, toluene, ethylbenzene and xylene (BTEX) content, AOC-2 will be investigated for a potential OWS release.

Using NASSCO guidelines, and shown in Attachment 3: Inspection Records and Defect Summary, the Overall Manhole Rating for 32-4 was given a structural rating index of 3 and an O&M rating of 2. This fracture defect noted in MH 32-4 has an individual rating of 3 and will be investigated as a potential OWS leak.

Figure 2: *Video still showing fracture in MH 32-4 above the outlet pipe.*

Figure 3: *Video still showing top portion of fracture in MH 32-4.*

Actions pertaining to investigating this suspected release were initiated in early 2025. Further sampling and confirmation of any suspected or actual release from this defect will be performed and submitted as part of the 2025 Annual Progress Report. Investigation of AOC-2 will be conducted and reported in line with the IRP section “Procedures for Determining Whether a Release Has Occurred.” If a release is confirmed, bp Cherry Point will provide notification to Ecology as detailed the “Release Reporting” section of the IRP. Sampling and confirmation of any suspected or actual release from this defect will also be included as part of the 2025 Annual Progress Report.

5. DEFECT RATING OF THREE OR GREATER

5.1 MH 32-10 to 32-9

At 16.6’ downstream of MH 32-10, there is one defect given a 3 rating and classified as CM, which is the NASSCO code for *cracks, multiple*. Although rated as a 3 using the OWS Matrix Rating, the observed defect did not appear to be a concern for a release. The cracks were minor in their category, but NASSCO classifies them as a 3 rating.

Figure 4: *Video still showing cracks, multiple at 16.6' downstream of MH 32-10. OWS Matrix Rating of 3.*

At 189.9' downstream of MH 32-10, there are three defects given a 3 rating and classified as MWSL, indicating *miscellaneous water level sag* in three locations. These sags are minor in their category, but NASSCO classifies them as a 3 rating.

Figure 5: *Video still showing "miscellaneous water level sag" approximately 190' downstream of MH 32-10. OWS Matrix Rating of 3.*

At 47.7' downstream of MH 32-10, there is one defect given a five rating and classified as IGJ, indicating *inflow gushing.* This defect is identified as AOC-1 and detailed information is given in Section 3, Area of Concern-1.

5.2 MH 40-21 to 40-22

The line MH 40-21 to 40-22 included four areas that were rated 3. This line conveys material from the #1DHDS, crude, chemical treaters and #2 Cooling Tower to the WWTP.

Three of the defects noted that contributed to a structural rating of 3 were three wrinkles in the liner located at 0.0'. Peeling of the seam tape at 13.2' was also given a 3 rating. Each of these defects is noted in the PACP report. The cure in place liner provides additional protection from erosion of the reinforced concrete line and the structural integrity of the main concrete line is not at risk at either of these locations. They are considered defects by the NASSCO rating system because they might impact product flow.

Figure 6: *Video still showing seam tape peeling approximately 13' downstream of MH 40-21. OWS Matrix Rating of 3.*

Figure 7: *Video still showing wrinkles in the liner at 0.0' downstream of MH 40-21. OWS Matrix Rating of 3.*

5.3 MH 32-4

MH 32-4 can be located on Attachment 1: Oily Water Sewer Main Trunk Lines. It is a fracture in an unlined concrete manhole, approximately 6” in length and located on the southwest side, directly above the outlet pipe. MH 32-4 is located just west of the WWTP Clarification Ponds, in the roadway running between WWTP and the Clarification Ponds. It conveys mainly rainwater and intermittent flow from an OWS area drain located south of the aeration basin, as well as oil-skimmed influent to the Stormwater Surge Pond.

This defect is identified as AOC-2 and detailed information is given in Section 3, Area of Concern-2.

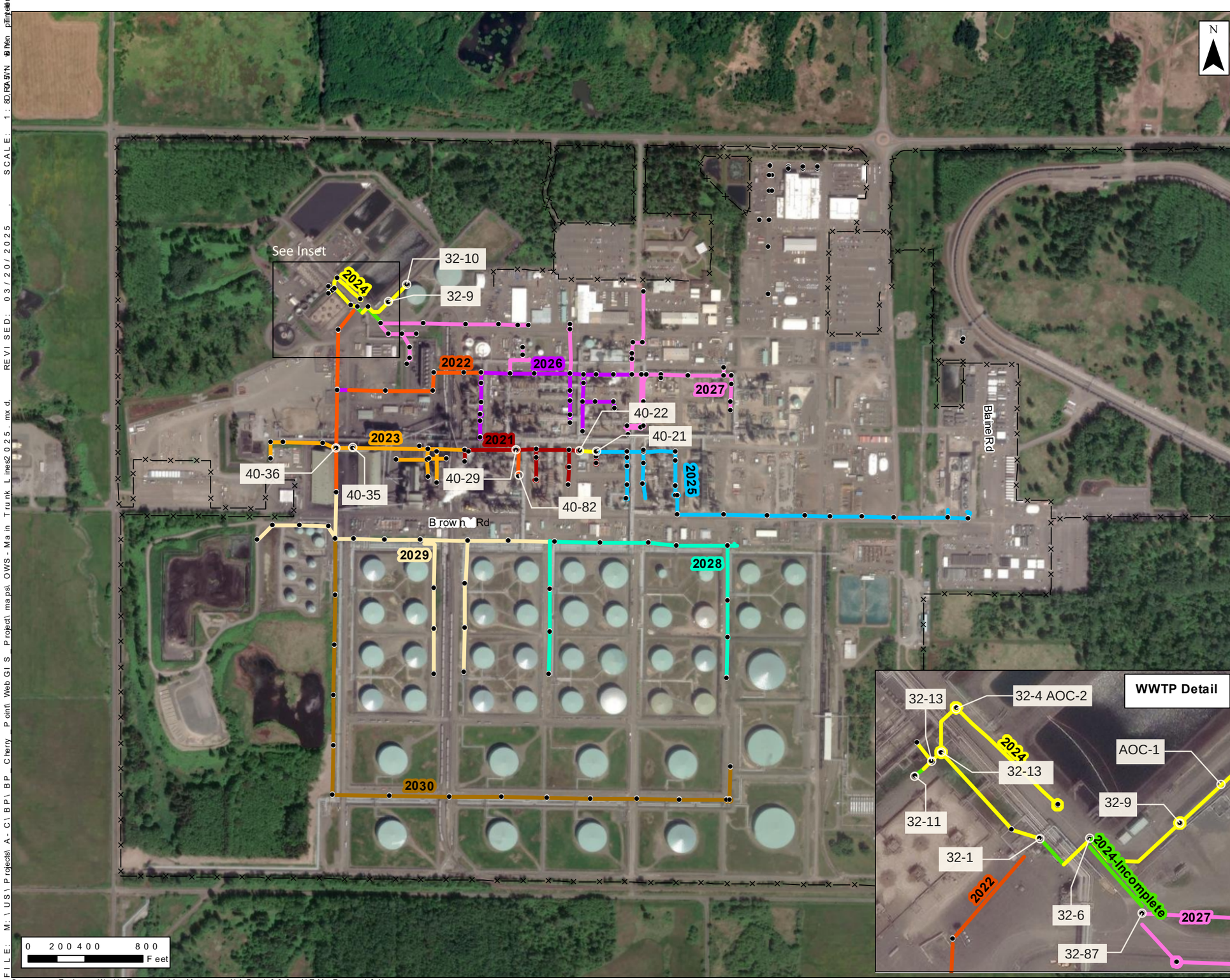
6. CONCLUSION

The 2024 OWS inspections identified one defect with a rating of 5. This location is identified in AOC-1. Per the IRP, the site characterization of AOC-1 will be initiated in 2025 to determine if a release has occurred at this location.

One defect with a rating of 3, located within in manhole 32-4, was identified as AOC-2. Per the IRP, the site characterization of AOC-2 will be initiated in 2025 to determine if a release has occurred at this location.

The locations of AOC-1 and AOC-2 are both located in the refinery’s WWTP and are shown on Attachment 1: Oily Water Sewer Main Trunk Lines.

Work outside the scope of the planned 2024 OWS inspection included re-inspection of two manholes: MH 40-35 and 40-36, the line 40-21 to 40-22 and the last 20’ of the line 40-82 to 40-29. This out-of-scope inspection work did not trigger confirmation soil sampling. No evidence of a potential leak was observed, and the structural integrity of these areas was not at risk.



Legend

- Oily Water Sewer Manholes
- Fenceline

Main Trunk Line Segments

Inspection and Assessment Year

- 2021 – Complete
- 2022 – Complete
- 2023 – Complete
- 2024 – Complete
- 2024 – Incomplete
- 2025 – Planned
- 2026 – Planned
- 2027 – Planned
- 2028 – Planned
- 2029 – Planned
- 2030 – Planned

Attachment 1:

Oily Water Sewer - Main Trunk Lines

BP Cherry Point
Ferndale, Washington

ERM

Source: Esri - World Topographic Map; NAD 1983 UTM Zone 10N

FILE: M:\US\Projects\A-C\BP\BP_Cherry_Point\Web GIS_Project\map\OWS-Main Trunk Lines2025.mxd REVISED: 03/20/2025 SCALE: 1:8,000 RDA 3VN

Attachment 2: Oily Water Sewer Rating Matrix

Rating[1]	Characteristics/Examples	Actions and Documentation Low/Intermittent Flow and/or minimal HC[2]/ content	Actions and Documentation High/Continuous Flow and/or high HC/BTEX[3] content
5	Most significant defect grade. Examples include: collapse, significant holes, broken soil/void visible, joint offset large, missing wall, reinforcement projecting or corroded, groundwater infiltration gushing, deposits impeding >30% of flow.	Confirmed OWS releases with soil or groundwater exceedance of MTCA cleanup levels will be reported to Ecology within 90 days of discovery. Conduct site characterization and schedule for high priority mitigation effort (repair, ongoing monitoring, if necessary, etc.). If the soil surrounding the defect appears impacted due to potential OWS release, immediate response actions will be initiated to stop the source of the potential release and cleanup activities will be initiated.	Confirmed OWS releases with soil or groundwater exceedance of MTCA cleanup levels will be reported to Ecology within 90 days of discovery. Conduct site characterization and schedule for high priority mitigation effort (repair, ongoing monitoring, if necessary, etc.). If the soil surrounding the defect appears impacted due to potential OWS release, immediate response actions will be initiated to stop the source of the potential release and cleanup activities will be initiated.
4	Significant defect grade. Examples: multiple fractures, broken pipe, joint offset medium, minor hole, severe surface damage, groundwater infiltration running, deposits impeding >20% to ≤30% of flow.	Conduct initial release investigation per IRP to determine whether a release has occurred. Increase to Rating 5 if OWS release is confirmed. Schedule for moderate priority mitigation effort based on refinery operational needs and/or accessibility, or reinspect to monitor defect condition.	Conduct initial release investigation per IRP to determine whether a release has occurred. Increase to Rating 5 if OWS release is confirmed. Schedule for moderate priority mitigation effort based on refinery operational needs and/or accessibility, or reinspect to monitor defect condition.
3	Moderate defect grade. Examples include: multiple cracks, longitudinal and spiral fractures; groundwater infiltration dripping; surface corrosion, deposits impeding >10% to ≤20% of flow.	Document in refinery record. Schedule for low priority mitigation effort based on refinery operational needs and/or accessibility, or reinspect to monitor defect condition. Consider conducting confirmation soil sampling if structural integrity is at risk.	Document in refinery record. Schedule for low priority mitigation effort based on refinery operational needs and/or accessibility, or reinspect to monitor defect condition. Conduct confirmation soil sampling if structural integrity is at risk.
2	Minor to moderate defect grade. Examples include: longitudinal and spiral cracks, circumferential fractures, moderate pipe deterioration, groundwater infiltration weeping, deposits impeding ≤10% of flow.	Document in refinery record.	Document in refinery record. Consider conducting confirmation soil sampling if structural integrity is at risk.
1	Minor defect grade. Examples include: circumferential cracks, minor deterioration of the pipe or manhole material, visible aggregate, groundwater infiltration staining.	Document in refinery record.	Document in refinery record.
0	No defect observed.	Document in refinery record.	Document in refinery record.

[1] Ratings are established using NASSCO guidelines per the NASSCO PACP v.8.0, Appendix C
[2] HC means hydrocarbon or materials containing hydrocarbons
[3] benzene, toluene, ethylbenzene and xylene (BTEX)

Attachment 3: Inspection Records and Defect Summary

32-13 to 32-12 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

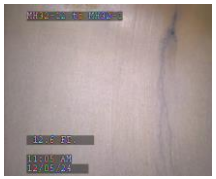
MH 32-12

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DSGV			12		2	Deposits, scattered gravel	

MH 32-13 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
MWL MWM		0% 10%				Water mark	

32-12 to 32-16 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
MDC	12.5'		11			Resin Stain	

MH 32-16 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

32-9 to 32-6

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	196.8'		12		2x8	Carbon Scale	
DAZ	191.7'	10	10 to 04	n/a	n/a	Carbon Outcrop	
LR	174.0'	50			1	Scale	
DAZ	138.0'		12		2x3	Carbon Scale	
DAZ	96.5'		12		2x18	Carbon Scale	
LR	89.5'	50			1	Scale	

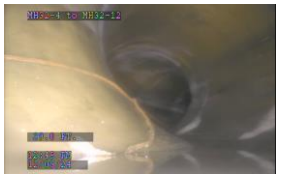
MH 32-9 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

MH 32-6 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	4.2'		12			Gravel	

32-4 to 32-12

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
LL	38.8'	50			1	Line left, construction feature	
LR	44.1'	50			1	Line right, construction feature	
LD	48.8'	100			1	Line down, construction feature	

MH 32-4

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DSGV	6'		12		2	Scattered Rock	
FL	2'		12	3		Fracture at pipe inlet	

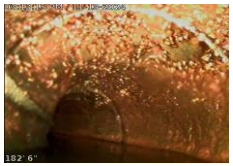
32-4 to 32-3

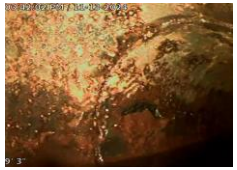
Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
SAV	0'		12	2x41		Surface damage, aggregate visible	
TBI	9.5'		12	2		Intruding feature, pipe inlet	
MWLS	73.9'	0.5		2		Misc. water level sag	

MH 32-3

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
SAV	204.8'		12	2x41		Surface damage, aggregate visible	

32-10 to 32-9

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
MWLS	189.9'	40		3x3		Misc. water level sag	
LR	189.9'				1	Line right, construction feature	
DAZ	184.8'		12		2x36	Carbon Scale	
LL	182.6'	50			1	Line left, construction feature	
MWLS	85.2'	20			2x8	Misc. water level sag	
IGJ	47.7'		6		5	Inflow gushing	

MWLS	43.6'				2x4	Misc. water level sag	
CM	16.6'			3		Cracks at elbow	
LL	16.5'	50			1	Line left, construction feature	
LR	9.0'	50			1	Line right, construction feature	

32-10

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	4.1'		12		2	Carbon Scale	

32-9

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	193.4'		12		2	Carbon Scale	

32-13 to valve No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

32-1 to 32-16 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

MH 32-1 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

32-8 to 32-13 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

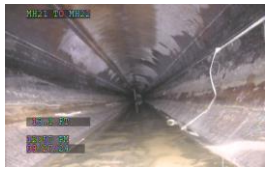
MH 32-8

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
SAV				2		Surface damage, aggregate visible.	
DSGV					2	Deposits, settled gravel.	

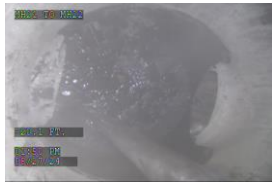
32-6 to 32-1

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	0.0'		12		2x9	Carbon Scale	
DSZ	32.8'		5 to 7		2	Oily Deposit	
LR	45.1'	30		1		Line right, construction feature	

40-21 to 40-22

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
LFW	0.0'		4		3x3	Wrinkling liner	
LFW	13.2'		4		3	Seam Tape Peeling	

MH 40-21 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

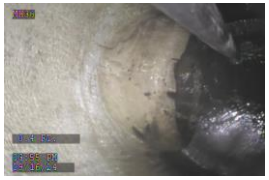
MH 40-22 No defects found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

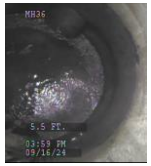
40-82 to 40-29

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DAZ	26'11"	1	12		2x3	Oily buildup	
LL	29'	50			1	Line left, construction feature	

MH 40-36 No defect found

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
						n/a	

40-35

Description	Distance	Percent	Clock	Structural Rating	O&M Rating	Remarks	Photos
DSZ		10	12		2	Deposits, scattered rock on bottom, oily	

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer BP	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20240916 YYYYMMDD	12. Time 11:30
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20240916 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** CI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 40-35	**23. Street (1,2)** D AVE	**24. City (1,2)** BLAINE, WA
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details COKE BARNS			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N	P		SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N	P		SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
P		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR	P	SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
0	

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06		OUT	FRP	C	30	30	S	S	GR		
2	12		IN	RCP	C	30	30	S	S	GR		LINED

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241009		40-35

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
-		WI	MWM				10						
-		B	DSZ							12		2	ROCKS, OILY

Manhole 40-35

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**0**	**1**		
Overall Manhole Rating			**0**	**2**
Rating Index			**0**	**2**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer BP	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20240916 YYYYMMDD	12. Time 15:34
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20240916 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** CI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 40-36	**23. Street (1,2)** D AVE	**24. City (1,2)** BLAINE, WA
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details COKE BARNS			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N	P		SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N	P		SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
P		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR	P	SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
0	

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	O	RCP	C	36		S	S	GR		
2	09	N	I	RCP	C	30		S	S	GR		
3	12	N	I	RCP	C	12		S	S	GR		
4	04	N	I	RCP	C	12		S	S	GR		

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241009		40-36

Depth (feet) (meters)	Video Ref.	Component	Code Group/ Descriptor/ Modifier	Continuous Defect	Value Dimension 1st	Value Dimension 2nd	Value %	Joint	Step	Circumferential Location At/ From	Circumferential Location To	Image Ref.	Remarks
-		WI	MWM				20						
-		B	MGO										WIRE

Manhole 40-36

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	0	0		
Overall Manhole Rating			0	0
Rating Index			0	0

PACP Inspection Form – Header Section

General Information — **Red bold font fields = Mandatory**, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021		3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer BP		7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20240819	12. Time 15:16	13. Sheet Number
14. Weather	**15. Pre-Cleaning** N	16. Date Cleaned YYYYMMDD	17. Flow Control	18. Purpose of Survey F
19. Direction of Survey D	20. Inspection Technology Used CC		**21. Inspection Status** SL	
22. Consequence of Failure		23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** 7TH ST
27. City BLAINE, WA	28. Location Code Z	29. Location Details COKER

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 8	**32. Width** 8	**33. Shape** C
34. Material CAS	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 31.4	40. Year Constructed YYYY	41. Year Renewed YYYY

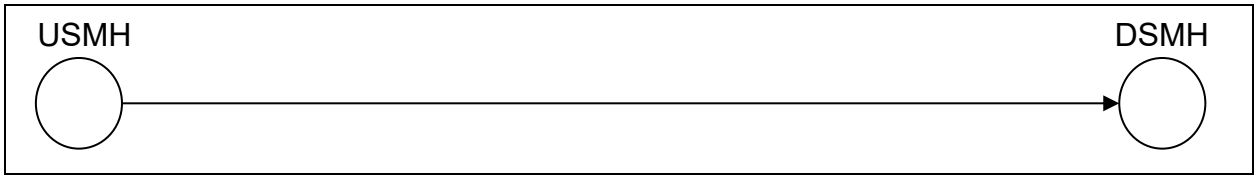
Measurements

42. Upstream MH No. 40-82	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 40-29	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information
HAND CAMERA DISTANCE COUNTER INACCURATE

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



Details Section

Distance (feet) (meters)	Video Ref.	Code Group/ Descriptor/ Modifier	Continuous Defect	Value Dimension 1st	Value Dimension 2nd	Value %	Joint	Circumferential Location At/From	Circumferential Location To	Image Ref.	Remarks
26' 11"	00:05	AOC									AREA DRAIN
26' 11"	00:05	MWL				05					

PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241010		40-82	40-29

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
26' 11"	00:05	DAZ	S01			1		12	12	2x3	OILY BUILD UP
27'	01:27	MWL				10					
27' 10"	01:41	MWL				20					
29'	02:16	LL				50				1	
31' 4"	03:13	DAZ	F01			1					OILY BUILD UP
31' 4"	03:13	MSA									PIPE ANGLE TOO SHARP
31' 4"	05:44	AOC									AREA DRAIN

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 40-82 to Manhole 40-29

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	3	0	6
1	0	1	0	1
Total Defects	**0**	**4**		
Overall Line Rating			**0**	**7**
Rating Index			**0**	**1.75**

PACP Inspection Form – Header Section

General Information — **Red bold font fields = Mandatory**, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021		3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer BP		7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20240827	12. Time 12:56	13. Sheet Number
14. Weather 1	**15. Pre-Cleaning** N	16. Date Cleaned YYYYMMDD	17. Flow Control	18. Purpose of Survey F
19. Direction of Survey D	20. Inspection Technology Used CC		**21. Inspection Status** CI	
22. Consequence of Failure		23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** D AVE
27. City BLAINE, WA	28. Location Code Z	29. Location Details REFORMER

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 27	**32. Width** 27	**33. Shape** C
34. Material RCP	35. Lining Method CIP	36. Coating Method	37. Pipe Joint Length
38. Total Length 103.1	39. Length Surveyed 103.1	40. Year Constructed YYYY	41. Year Renewed YYYY

Measurements

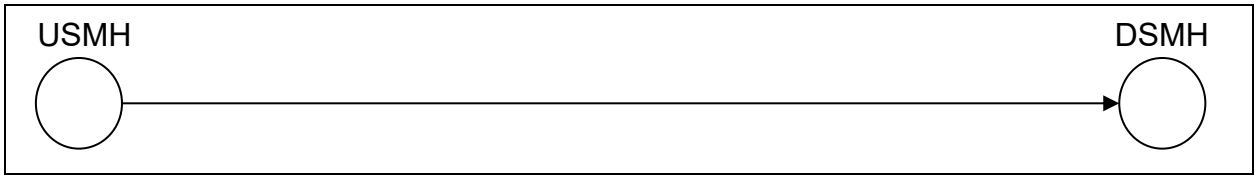
42. Upstream MH No. 40-21	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert

46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 40-22	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



Details Section

Distance (feet) (meters)	Video Ref.	Code Group/ Descriptor/ Modifier	Continuous Defect	Value Dimension 1st	Value Dimension 2nd	Value %	Joint	Circumferential Location At/From	Circumferential Location To	Image Ref.	Remarks
0.0		AMH									40-21
0.0		MWL				05					

PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20240827		40-21	40-22

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		MWM				70					
0.0		LFW	S01					04		3x3	
13.2		LFZ						03		3	SEAM TAPE PEELING
13.2		LFW	F01					04			
22.2		MGO						04			SMALL OBJECT STUCK ON WALL
24.3		MGO						08			SLIGHT RIDGE IN LINING
51.7		MGO						08			SLIGHT RIDGE IN LINING
59.4		MGO	S02					08			SLIGHT RIDGE IN LINING
91.2		MWL				20					
102.6		MGO	F02					08			SLIGHT RIDGE IN LINING
103.1		AMH									40-22

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 40-21 to Manhole 40-22

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	4	0	12	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**4**	**0**		
Overall Line Rating			**12**	**0**
Rating Index			**3**	**0**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer BP	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20240827 YYYYMMDD	12. Time 13:49
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20240827 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** CI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 40-21	**23. Street (1,2)** D AVE	**24. City (1,2)** BLAINE, WA
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details REFORMER			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N	P		SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N	P		SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
P		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR	P	SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
0	

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	O	RCP	C	27		S	S	GR		LINED
2	08	N	I	CAS	C	08		S	S	GR		
3	09	N	I	RCP	C	15		S	S	GR		
4	12	N	I	RCP	C	27		S	S	GR		LINED

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241009		40-21

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
-		WI	MWM				10						
-		B	DSZ				05			12		2	SLUDGE

Manhole 40-21

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**0**	**1**		
Overall Manhole Rating			**0**	**2**
Rating Index			**0**	**2**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2)	**2. Certificate Number (1,2)**	3. Reviewed By	4. Reviewer Certificate No.
5. Owner	6. Customer	7. P/O Number	8. Work Order
9. Media Label	10. Project	**11. Date (1,2)** YYYYMMDD	12. Time
13. Sheet Number	14. Weather	**15. Pre-Cleaning (2)**	16. Date Cleaned YYYYMMDD
17. Purpose of Survey (1,2)	**18. Inspection Level (1,2)**	**19. Inspection Status (1,2)**	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)**	**23. Street (1,2)**	**24. City (1,2)**
25. Location Code (2)	**26. Surface Type (2)**	27. Inflow Potential from Runoff	
28. Location Details			

Manhole

29. MH Use (2)	**30. Access Type (1,2)**	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)**

Measurements

34. Rim to Invert (2)	34A. Rim to Lowest Point	**35. Rim to Grade (2)**	**36. Grade to Invert (2)**
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	GOOD	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR				SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		FR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	FR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
0	

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							

Manhole 32-8 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	1	1	2	2
1	0	0	0	0
Total Defects	**1**	**1**		
Overall Manhole Rating			**2**	**2**
Rating Index			**2**	**2**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** YYYYMMDD	12. Time 15:23
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241209 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-12	**23. Street (1,2)** WASTEWATER	**24. City (1,2)** BLAINE
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details WASTEWATER UNIT			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** Y

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	N		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
S	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
S	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	S			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N			SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		FR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	FR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
9	M

Additional Component Information

106. Additional Component Information
STEPS CORRODED
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	OUT	FRP	C	20	20	S	S	GR		
2	11	N	IN	FRP	C	20	20	S	S	GR		DROP INLET
3	03	N	IN	FRP	C	20	20	S	S	GR		

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241217		32-12

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
		WALL	MGO						S				HANGING DEBRIS
		BENCH	DSGV							12	12	2	SCATTERED

Manhole 32-12 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**0**	**1**		
Overall Manhole Rating			**0**	**2**
Rating Index			**0**	**2**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021		3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer		7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241216	12. Time 15:28	13. Sheet Number
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241216	17. Flow Control VAC TRUCK	18. Purpose of Survey F
19. Direction of Survey D	20. Inspection Technology Used CC		**21. Inspection Status** RI	
22. Consequence of Failure		23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code Z	29. Location Details STORM SURGE PONDS

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 6	**32. Width**	**33. Shape** C
34. Material SP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 48.1	40. Year Constructed YYYY	41. Year Renewed YYYY

Measurements

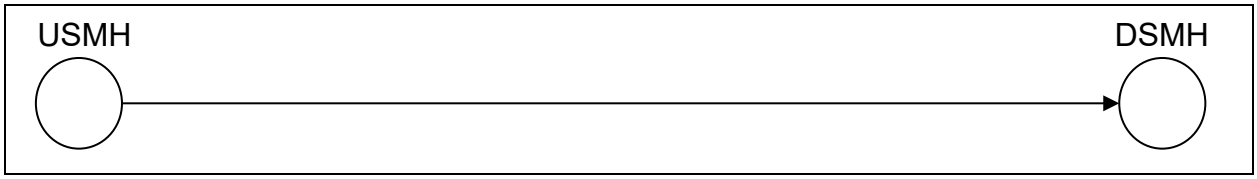
42. Upstream MH No. 32-6	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert

46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-1	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-6	32-1

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-6
0.0		MWL				0					
0.0		DAZ	S01					12	12	2x9	CARBON SCALE
3.4		TFA		6				09			
7.1		MWL				10					
32.8		DSZ						05	07	2	OILY DEPOSITS
36.2		MWL				20					
40.5		MWL				30					
45.1		LR				30				1	
48.1		MWL				40					
48.1		DAZ	F01					12	12		
48.1		ATC		6							6" T CONNECTION

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-6 to 32-1 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	10	0	20
1	0	1	0	1
Total Defects	**0**	**11**		
Overall Line Rating			**0**	**21**
Rating Index			**0**	**1.9**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241212	12. Time 11:45	13. Sheet Number
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241212	17. Flow Control VAC TRUCK	18. Purpose of Survey F
19. Direction of Survey U	20. Inspection Technology Used CC		**21. Inspection Status** CI
22. Consequence of Failure	23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code Z	29. Location Details SEPARATORS

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 11.1	40. Year Constructed YYYY	41. Year Renewed YYYY

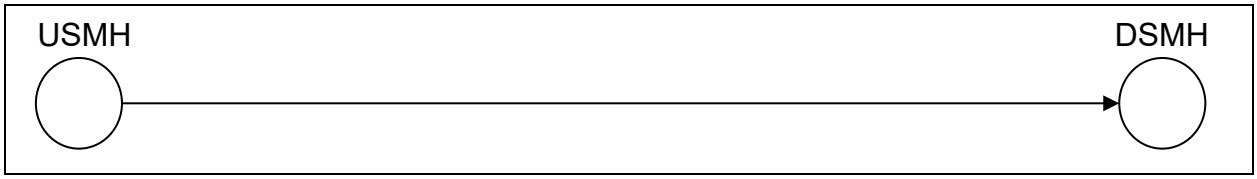
Measurements

42. Upstream MH No. 32-13	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-8	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-13	32-8

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-13
0.0		MWL				0					
0.0		MWM				50					
11.1		AMH									32-8

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-13 to 32-8 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**0**	**0**		
Overall Line Rating			**0**	**0**
Rating Index			**0**	**0**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021		3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer		7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241210	12. Time 15:06	13. Sheet Number
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241210	17. Flow Control VAC TRUCK	18. Purpose of Survey F
19. Direction of Survey D	20. Inspection Technology Used CC		**21. Inspection Status** CI	
22. Consequence of Failure		23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details PONDS

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 14.4	40. Year Constructed YYYY	41. Year Renewed YYYY

Measurements

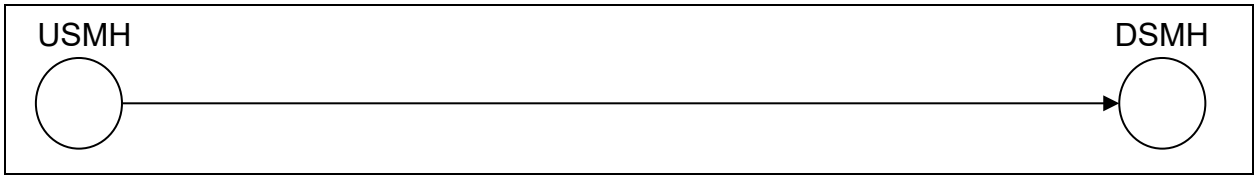
42. Upstream MH No. 32-1	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert

46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-16	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-1	32-16

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-1
0.0		MWL				05					
14.4		AMH									32-16

Red bold font fields = Mandatory, Black font fields = Optional

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241210	12. Time 1218
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241210
17. Flow Control VAC TRUCK	18. Purpose of Survey F	**19. Direction of Survey** D	20. Inspection Technology Used CC
21. Inspection Status CI	22. Consequence of Failure	23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details PONDS

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed	40. Year Constructed YYYY	41. Year Renewed YYYY

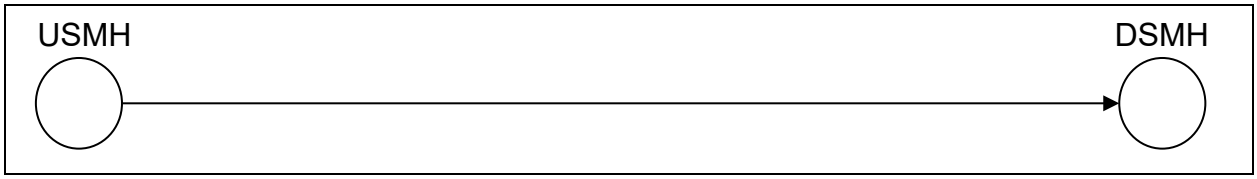
Measurements

42. Upstream MH No. 32-13	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-11	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information Million Dollar Valve blocking line

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-13	32-11

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-13
0.0		MWL				05					
END		MSA									$$$ VALVE

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-13 to $ Valve Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**0**	**0**		
Overall Line Rating			**0**	**0**
Rating Index			**0**	**0**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241113	12. Time 1511
13. Sheet Number			
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241113	17. Flow Control VAC TRUCK
18. Purpose of Survey F			
19. Direction of Survey U	20. Inspection Technology Used CC	**21. Inspection Status** CI	
22. Consequence of Failure	23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details TANK 320

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 6	**32. Width** 6	**33. Shape** C
34. Material SP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 189.3	40. Year Constructed YYYY	41. Year Renewed YYYY

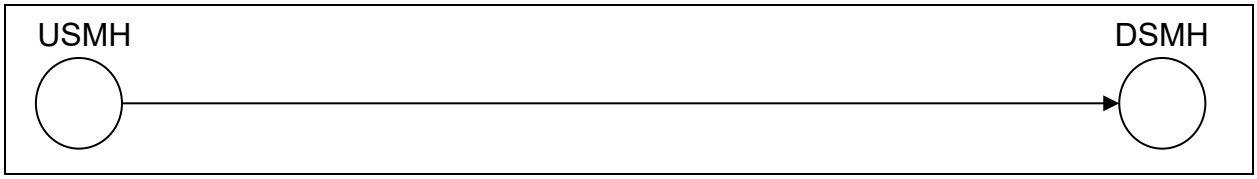
Measurements

42. Upstream MH No. 32-10	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-9	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information CAMERA PULLED BACKWARDS THROUGH LINE

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241113		32-10	32-9

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
193.4		AMH									32-9
193.4		MWL				0					
193.4		DAZ	S01					12	12	2	CARBON SCALE
189.9		MWLS	S02			40				3x3	
189.9		MCU	S03								
189.9		DAZ	F01					12	12		MCU
189.9		LR				50				1	
184.8		MCU	F03								
184.8		DAZ	S04					12	12	2X36	CARBON SCALE
182.6		LL				50				1	
177.1		MWLS	F02			40					
95.2		MWLS	S05			20				2X8	
54.3		MWLS	F05			20					
47.7		IGJ						06		5	
43.6		MWLS	S06			30				2X4	
26.1		MWLS	F06			30					
26.1		MWL				20					
16.6		CM						03		3	AT ELBOW
16.5		LL				50				1	
9.0		LR				50				1	
8.2		MWL				10					
4.1		DAZ	F04					12	12		CARBON SCALE
4.1		AMH									32-10

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-10 TO 32-9 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	1	0	5
4	0	0	0	0
3	4	0	12	0
2	12	37	24	74
1	0	4	0	4
Total Defects	**16**	**42**		
Overall Line Rating			**36**	**83**
Rating Index			**2.25**	**1.97**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-12202	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20241113 YYYYMMDD	12. Time 15:42
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241113 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-10	**23. Street (1,2)** WASTEWATER	**24. City (1,2)** BLAINE
25. Location Code (2) Z	**26. Surface Type (2)** GRAVEL	27. Inflow Potential from Runoff	
28. Location Details PROCESS UNIT- TANK 320			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N			SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
1	M

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241231		32-10

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
ALL		WI	DAZ							12	12	2	CARBON BUILD UP
BOTTOM		B	DSGV									2	SCATTERED PEBBLES

Manhole 32-10 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	2	0	4
1	0	0	0	0
Total Defects	**0**	**2**		
Overall Manhole Rating			**0**	**4**
Rating Index			**0**	**2**

PACP Inspection Form – Header Section

General Information — **Red bold font fields = Mandatory**, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241203	12. Time 14:11
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241203
17. Flow Control VAC TRUCK	18. Purpose of Survey F	**19. Direction of Survey** D	20. Inspection Technology Used CC
21. Inspection Status CI	22. Consequence of Failure	23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER PONDS
27. City BLAINE	28. Location Code	29. Location Details

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 12	**32. Width** 12	**33. Shape** C
34. Material RCP	35. Lining Method	36. Coating Method	37. Pipe Joint Length 7
38. Total Length 205	39. Length Surveyed 204.8	40. Year Constructed YYYY	41. Year Renewed YYYY

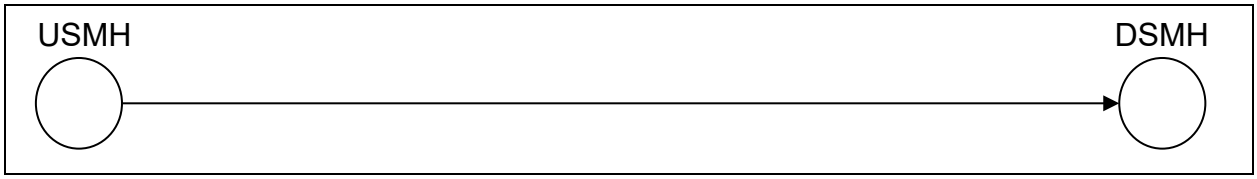
Measurements

42. Upstream MH No. 32-4	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-3	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241216		32-4	32-3

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-4
0.0		MWL				05					
0.0		SAV	S01					12	12	2x41	
9.5		TBI		4	2			12		2	TBA
14.2		MWLS				1				2	
41.3		MGO									STEAM
51.1		MWL				0					
64.6		MGO						06			SMALL ROCK
73.9		MWLS				0.5				2	
181.1		MWL				10					
199.2		MWL				20					
204.8		SAV	F01					12	12	2x41	
204.8		AMH									32-3

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-4 to 32-3 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	44	0	88	0
1	0	0	0	0
Total Defects	**44**	**0**		
Overall Line Rating			**88**	**0**
Rating Index			**2**	**0**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1036136
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20241216 YYYYMMDD	12. Time 11:49
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241204 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-4	**23. Street (1,2)** Road to APIs	**24. City (1,2)** Blaine
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details Wastewater Unit			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) 6 FT	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS		0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
1.5 FT			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR				SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	4.5 FT

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		D

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
5	M

Additional Component Information

106. Additional Component Information
Fractures in Wall
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	OUT	FRP	C	20		SOUND	SOUND	GR		
2	03	N	IN	RCP	C	20		SOUND	SOUND	GR		

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241205		32-4

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
2		W	FL							12	12	3	AT PIPE INLETS
6		B	DSGV							12	12	2	SCATTERED ROCK

Manhole 32-4 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	1	0	3	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**1**	**1**		
Overall Manhole Rating			**3**	**2**
Rating Index			**3**	**2**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241209	12. Time 12:46
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241209
17. Flow Control VAC TRUCK	18. Purpose of Survey F	**19. Direction of Survey** D	20. Inspection Technology Used CC
21. Inspection Status CI	22. Consequence of Failure	23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER PONDS
27. City BLAINE	28. Location Code	29. Location Details

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length 60	39. Length Surveyed 48.8	40. Year Constructed YYYY	41. Year Renewed YYYY

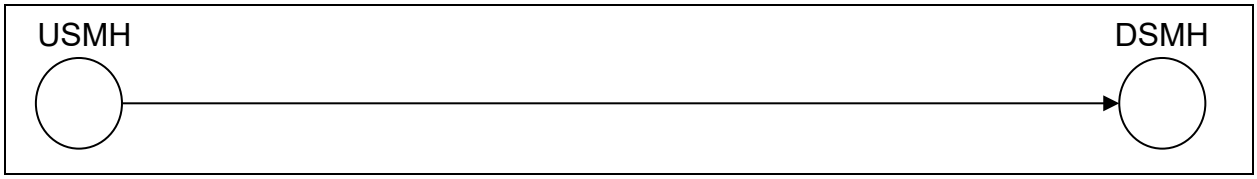
Measurements

42. Upstream MH No. 32-4	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-12	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information
LINE HAS 45 DEG TURNS SO CAMERA PULLED WITH ROPE TO CLOSE TO END

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-4	32-12

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-4
0.0		MWL				0					
0.0		MWM						12	12		MULTIPLE
19.2		MWL				10					
38.8		LL				50				1	
44.1		LR				50				1	
48.8		LD				100				1	
48.8		AMH									DROP INLET 32-12

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-4 TO 32-12 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	3	0	3
Total Defects	**0**	**3**		
Overall Line Rating			**0**	**3**
Rating Index			**0**	**1**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1036136
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** YYYYMMDD	12. Time 11:49
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241204 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-4	**23. Street (1,2)** Road to APIs	**24. City (1,2)** Blaine
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details Wastewater Unit			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) 6 FT	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS		0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
1.5 FT			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR				SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	4.5 FT

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		D

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
5	M

Additional Component Information

106. Additional Component Information
Fractures in Wall
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	OUT	FRP	C	20		SOUND	SOUND	GR		
2	03	N	IN	RCP	C	20		SOUND	SOUND	GR		

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241205		32-4

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
2		W	FL							12	12	3	AT PIPE INLETS
6		B	DSGV							12	12	2	SCATTERED ROCK

Manhole 32-4 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	1	0	3	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**1**	**1**		
Overall Manhole Rating			**3**	**2**
Rating Index			**3**	**2**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241119	12. Time 11:45
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241119
17. Flow Control VAC TRUCK	18. Purpose of Survey F	**19. Direction of Survey** U	20. Inspection Technology Used CC
21. Inspection Status CI	22. Consequence of Failure	23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details TANK 320 TO STORM SURGE POND

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 6	**32. Width** 6	**33. Shape** C
34. Material SP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed 192.6	40. Year Constructed YYYY	41. Year Renewed YYYY

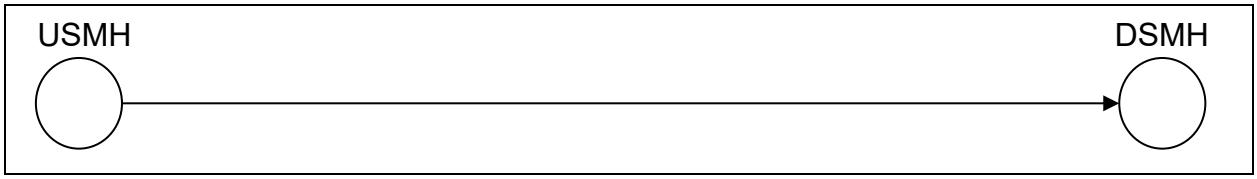
Measurements

42. Upstream MH No. 32-9	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-6	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information
CAMERA PULLED BACKWARDS THROUGH LINE

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241119		32-9	32-6

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
196.8		AMH									32-9
196.8		MWL				05					
196.8		DAZ	S01					12	12	2x8	CARBON SCALE
191.7	01:43	DAZ				10		10	04		CARBON OUTCROP
183.2		MWL				10					
179.5		MWL				20					
178.7		MGO						09			METAL PIECE
174.0		LR				50				1	
155.9		MCU	S02								SAG
155.9		DAZ	F01					12	12		
138.0		MCU	F02								
138.0		DAZ	S03					12	12	2x3	CARBON SCALE
122.3		MCU	S04								SAG
122.3		DAZ	F03					12	12		
96.5		MCU	F04								
96.5		DAZ	S05					12	12	2x18	CARBON SCALE
89.5		LR				50				1	
4.2		DAZ	F05					12	12		
4.2		AMH									32-6

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-9 to 32-6 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	29	0	58
1	0	2	0	2
Total Defects	**0**	**31**		
Overall Line Rating			**0**	**60**
Rating Index			**0**	**1.9**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20241119 YYYYMMDD	12. Time 12:03
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241119 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-6	**23. Street (1,2)** WASTEWATER	**24. City (1,2)** BLAINE
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details STORM SURGE POND			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N			SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
1	M

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20250106		32-6

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
		B	DSGV							12	12	2	SCATTERED GRAVEL

Manhole 32-6 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**0**	**1**		
Overall Manhole Rating			**0**	**2**
Rating Index			**0**	**2**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241205	12. Time 11:05
13. Sheet Number			
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241205	17. Flow Control VAC TRUCK
18. Purpose of Survey F			
19. Direction of Survey U	20. Inspection Technology Used CC	**21. Inspection Status** CI	
22. Consequence of Failure	23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length 181	39. Length Surveyed 180.7	40. Year Constructed YYYY	41. Year Renewed YYYY

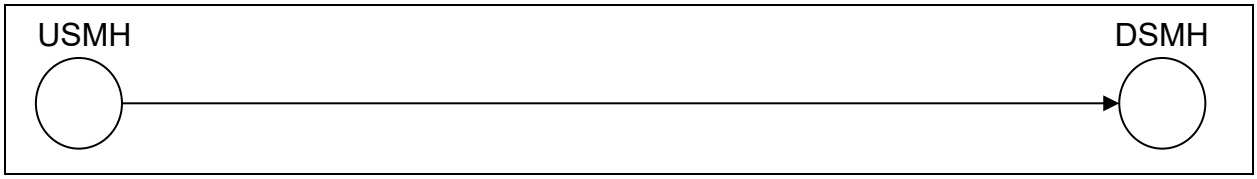
Measurements

42. Upstream MH No. 32-16	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-12	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP			32-16	32-12

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-12
0.0		MWL				0					
12.5		MDC						11			RESIN STAIN
180.7		AMH									32-16

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-12 to 32-16 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**0**	**0**		
Overall Line Rating			**0**	**0**
Rating Index			**0**	**0**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021		3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer		7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241205	12. Time 12:49	13. Sheet Number
14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241205	17. Flow Control VAC TRUCK	18. Purpose of Survey F
19. Direction of Survey U	20. Inspection Technology Used CC		**21. Inspection Status** CI	
22. Consequence of Failure		23. Pressure Value		

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER
27. City BLAINE	28. Location Code	29. Location Details ALONG PONDS

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length 25	39. Length Surveyed 24.6	40. Year Constructed YYYY	41. Year Renewed YYYY

Measurements

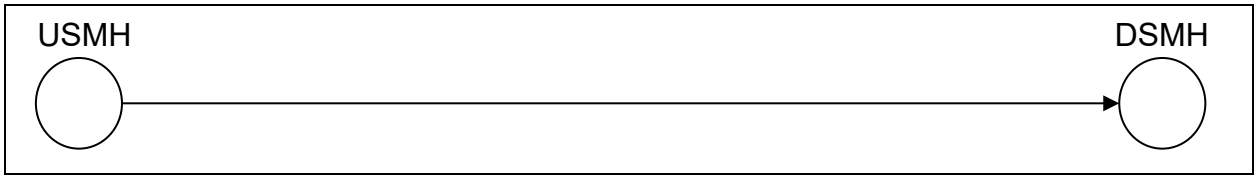
42. Upstream MH No. 32-12	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert

46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-13	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241210		32-12	32-13

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-13
0.0		MWL				0					
0.0		MWM				10					
24.6		AMH									32-12

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-13 to 32-12 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**0**	**0**		
Overall Line Rating			**0**	**0**
Rating Index			**0**	**0**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1031778
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20241210 YYYYMMDD	12. Time 10:37
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241210 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-13	**23. Street (1,2)** WASTEWATER	**24. City (1,2)** BLAINE
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details WASTEWATER UNIT			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) N	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS	N	0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
N			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR	N			SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		FR	N

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		SOUND

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	FR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
7	M

Additional Component Information

106. Additional Component Information
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241218		32-13

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension 1st	Dimension 2nd	%			At/ From	To		
		WALL	MGO						S				STEPS CORRODED

Manhole 32-13 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	0	0	0
Total Defects	**0**	**0**		
Overall Manhole Rating			**0**	**0**
Rating Index			**0**	**0**

MACP Inspection Form – Header Section

General Information

1. Surveyed By (1,2) Brian Garries	**2. Certificate Number (1,2)** P0035046-122021	3. Reviewed By	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order 1036136
9. Media Label	10. Project 2024 OWS	**11. Date (1,2)** 20241204 YYYYMMDD	12. Time 11:49
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning (2)** L	16. Date Cleaned 20241204 YYYYMMDD
17. Purpose of Survey (1,2) F	**18. Inspection Level (1,2)** 2	**19. Inspection Status (1,2)** RI	20. Consequence of Failure

Location

21. Drainage Area	**22. MH/Access Point No. (1,2)** 32-4	**23. Street (1,2)** Road to APIs	**24. City (1,2)** Blaine
25. Location Code (2) Z	**26. Surface Type (2)** ASPHALT	27. Inflow Potential from Runoff	
28. Location Details Wastewater Unit			

Manhole

29. MH Use (2) PR	**30. Access Type (1,2)** AMH	31. Year Constructed YYYY
32. Year Renewed YYYY		**33. Evidence of Surcharge (2)** N

Measurements

34. Rim to Invert (2) 6 FT	34A. Rim to Lowest Point	**35. Rim to Grade (2)** N	**36. Grade to Invert (2)** N
37. Rim to Grade Exposed	38. Northing*	39. Easting*	40. Elevation**
41. Coordinate System*	42. Vertical Datum**	43. GPS Accuracy	

44. Additional Information

Red bold font fields = Mandatory, Black font fields = Optional

* Information required if Northing, Easting or Coordinate System data is recorded.
** Information required if Elevation or Vertical Datum data is recorded.

Sketch

MACP Inspection Form – Manhole Component Observation Section

1 = Mandatory Level 1 Inspection
2 = Mandatory Level 2 Inspection

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
SOLID	C	25.5		

50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)
CAS		0	N

54. Bearing Surface Width (2)	55. Cover/Frame Fit (1,2)	56. Cover Condition (1,2)
N	G	SOUND

Cover Insert

57. Insert Material (2)	58. Cover Insert Condition (2)
N	

Cover Adjustment Ring

59. Ring Type (1,2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Depth
N			

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
CAS	N	N	N

67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance
N	SOUND	SOUND	

71. Seal Inflow (2)	72. Frame Depth
N	

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
Y	CR			

78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)
1.5 FT			SOUND

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
FT	CR				SOUND

Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
		CR	4.5 FT

92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)
		D

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
Y	CR		SOUND

Channel

99. Channel Installed (2)	100. Channel Material (2)	101.Type (2)	102. Exposure (2)	103. Channel Condition (1)
N				

Steps

104. Number (2)	105. Material (2)
5	M

Additional Component Information

106. Additional Component Information
Fractures in Wall
106A. Other Manhole Appurtenances

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Pipe Comments
1	06	N	OUT	FRP	C	20		SOUND	SOUND	GR		
2	03	N	IN	RCP	C	20		SOUND	SOUND	GR		

MACP Inspection Form - Manhole Component Details Continuation Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2)	13. Sheet Number	22. MH/Access Point No. (1,2)
Brian Garries	BP	20241205		32-4

Depth (feet) (meters)	Video Ref.	Component	Code	Continuous Defect	Value			Joint	Step	Circumferential Location		Rating	Remarks
			Group/ Descriptor/ Modifier		Dimension		%			At/ From	To		
					1st	2nd							
2		W	FL							12	12	3	AT PIPE INLETS
6		B	DSGV							12	12	2	SCATTERED ROCK

Manhole 32-4 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	1	0	3	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**1**	**1**		
Overall Manhole Rating			**3**	**2**
Rating Index			**3**	**2**

Manhole 32-4 Rating

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	1	0	3	0
2	0	1	0	2
1	0	0	0	0
Total Defects	**1**	**1**		
Overall Manhole Rating			**3**	**2**
Rating Index			**3**	**2**

PACP Inspection Form – Header Section

General Information

Red bold font fields = Mandatory, Black font fields = Optional

1. Surveyed by Brian Garries	**2. Certificate No.** P0035046-122021	3. Reviewed by	4. Reviewer Certificate No.
5. Owner BP	6. Customer	7. P/O Number	8. Work Order Number 1031778
9. Media Label	10. Project 2024 OWS	**11. Date** 20241209	12. Time 12:46
13. Sheet Number	14. Weather 1	**15. Pre-Cleaning** L	16. Date Cleaned 20241209
17. Flow Control VAC TRUCK	18. Purpose of Survey F	**19. Direction of Survey** D	20. Inspection Technology Used CC
21. Inspection Status CI	22. Consequence of Failure	23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	**26. Street (Name & Number)** WASTEWATER PONDS
27. City BLAINE	28. Location Code	29. Location Details

Pipe

30. Pipe Use PR	**31. Height (Diameter)** 20	**32. Width** 20	**33. Shape** C
34. Material FRP	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length 60	39. Length Surveyed 48.8	40. Year Constructed YYYY	41. Year Renewed YYYY

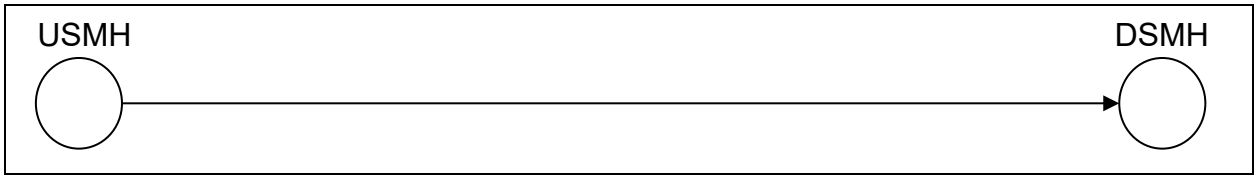
Measurements

42. Upstream MH No. 32-4	43. Upstream MH Rim to Invert	44. Upstream MH Rim to Grade	45. Upstream MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No. 32-12	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information
LINE HAS 45 DEG TURNS SO CAMERA PULLED WITH ROPE TO CLOSE TO END

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

Sketch



PACP Inspection Form – Details Continuation Section

1. Surveyed by	5. Owner	**11. Date**	13. Sheet No.	**42. Upstream MH No.**	**49. Downstream MH No.**
Brian Garries	BP	20241209		32-4	32-12

Distance (feet) (meters)	Video Ref.	Code	Continuous Defect	Value			Joint	Circumferential Location		Rating	Remarks
		Group/ Descriptor/ Modifier		Dimension		%		At/ From	To		
				1st	2nd						
0.0		AMH									32-4
0.0		MWL				0					
0.0		MWM						12	12		MULTIPLE
19.2		MWL				10					
38.8		LL				50				1	
44.1		LR				50				1	
48.8		LD				100				1	
48.8		AMH									DROP INLET 32-12

Red bold font fields = Mandatory, Black font fields = Optional

Manhole 32-4 TO 32-12 Rating

Condition Grade	Defects		Line Grade	
	Structural	O&M	Structural	O&M
5	0	0	0	0
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	0	3	0	3
Total Defects	**0**	**3**		
Overall Line Rating			**0**	**3**
Rating Index			**0**	**1**