PCS 84069

Buell, Thomas

From: Mark Bowers <mark.bowers@bayer.com>
Sent: Thursday, May 20, 2021 8:21 AM
To: Buell, Thomas
Cc: Mark Bowers
Subject: NDEE Inspection Follow Up
Attachments: Settje Engineering 12in Force Main Investigation 051921.pdf

Tom –
As previously discussed, we asked Clean Harbors to coordinate with an engineering firm to evaluate the area around a force main pipe break adjacent the south lagoon. This area was noted in an NDEE inspection report as initial corrective actions were being implemented. The objective was to ensure the break had not compromised the berm. The resulting report is attached. Despite the very low risk conclusion in the report, we have asked Clean Harbors to get a proposal to further stabilize/fill the area as a precautionary measure. We will keep you posted on progress. In addition, the pipe has been repaired but we have taken action to ensure that the force main is no longer used for water transfer. If you should have any questions, please contact me. Thanks.

Freundliche Grüße / Best regards,

Mark Bowers, MS, CIH
Senior Remediation Manager

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Agri-Services & Engineering, Inc.

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P 402.783.2100 F 402.783.2104

May 19, 2021

Mr. Tony Fisher
Director of Remediation
Clean Harbors Remediation Technologies
212 S. Pine River Street
Ithaca, MI 48847

Reference:

Sewer Force Main Leak Inspection
Alten, LLC Ethanol Production Facility
W 1/2 of Sec. 12, T 14N, R 8E, Saunders County

Mr. Fisher:

On May 13, 2021, I met Mr. Matthew O'brien at the facility referenced above. He showed me to the location where sewer discharge had been visually observed "bubbling" to the surface in the west embankment of Lagoon Cell #1. It was located just south of the two concrete manholes that serve as junction points and house valves to allow for flow to be directed to each lagoon. After reviewing the plans, we concluded that the leak was in the 12 inch sewer force main that flows from the lift station adjacent to the plant up to the two manhole junction points. The grade was observed to be soft and disturbed at the surface.

A hand operated steel sampling probe was used to probe at the location where surface disturbance was observed. Little to no resistance was felt at that location to a depth of approximately 3.5 feet indicating that a void had been created from the leak. Saturated soft subgrade was observed from 3.5 to 4.0 feet below the surface. Probing was then done in a pattern around the initial site moving radially outward until structurally stable subgrade was encountered. In this way the extent of the damage created from the leak was delineated. The distance from the initial spot to stable subgrade was measured and varied from a minimum of 6 feet up to a maximum of 10 feet. The distance from the permanent impoundment pool in Lagoon Cell #1 to the closest probing that found stable subgrade was also measured and showed that a minimum of 20 feet of stable subgrade remained.

Based on these findings, it is my opinion that the risk of discharge from Lagoon Cell #1 at the location of the observed leak is very low. This is based on the conditions observed on May 13, 2021 and only applies to the specific location that was inspected. The 12 in sewer force main

must be repaired prior to any further operation or the facility will risk further subgrade damage and a potential future breach as the result.

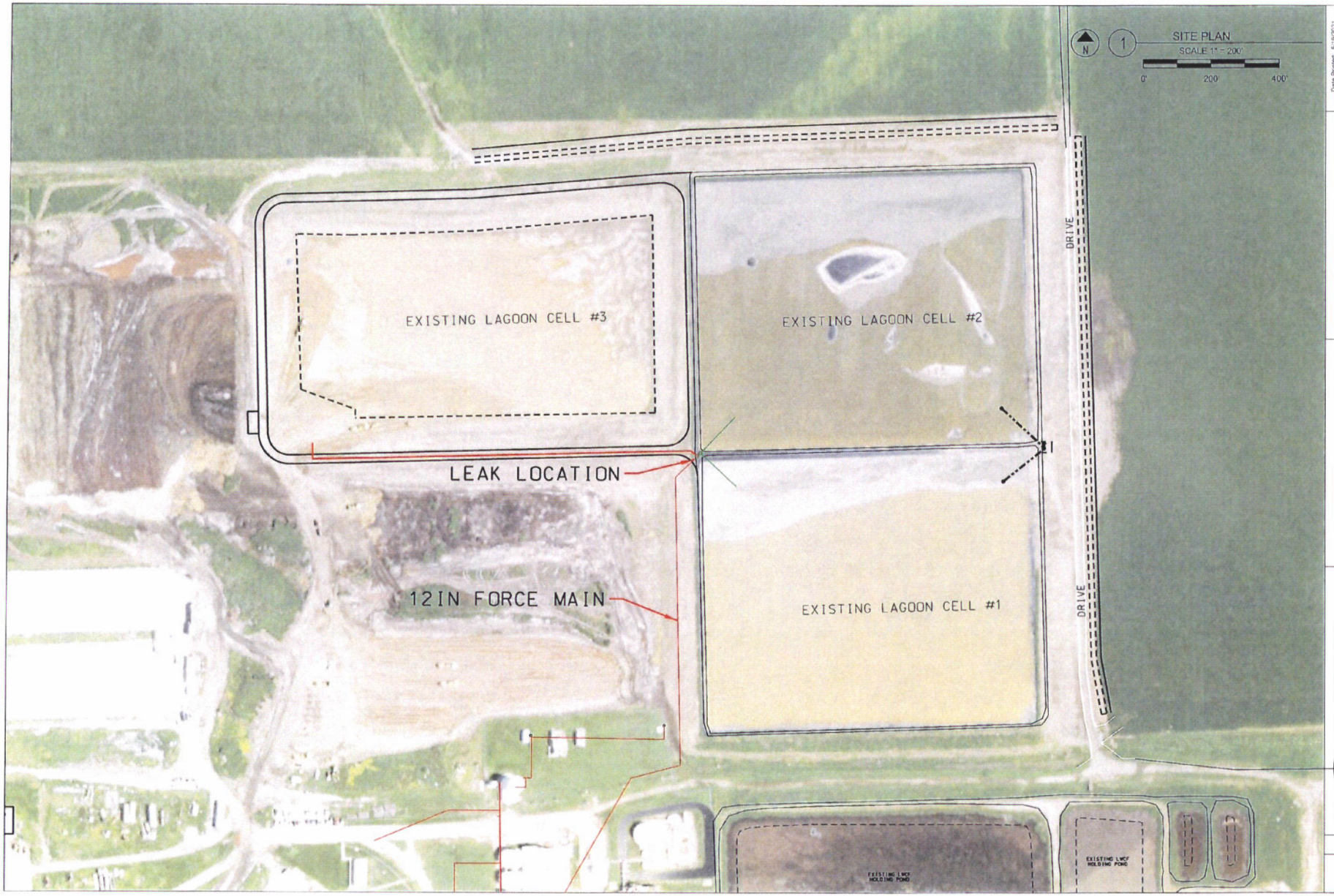
Please find enclosed a site plan showing the location of the observed leak as well as photos showing the probing locations. The lath shows the location that the surface disturbance was noted. The flags indicate the location that stable subgrade was observed in each direction from the leak. Please contact us with any questions or concerns.

Sincerely,

Matthew D. Goeller, P.E.

enclosures

5-19-21



Date Printed: 5/19/2021

Rev.	Date

SEWER LEAK INSPECTION

AltEn, LLC

SE ¼ of NW ¼ of Sec. 12, T-14-N, R-8-E

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