August 29, 2018

Heather V. Tittjung
Magellan Midstream Partners, LP
One Williams Center, OTC-8
Tulsa, OK 74172

SUBJECT: Petroleum Recovery Site Inspection
Magellan - Des Moines Terminal at 2503 SE 43rd Street in Pleasant Hill, Iowa
Spill Number: 030210-AHB-0849

Dear Ms. Tittjung:

Enclosed is the report completed by Bill Gibbons of the Field Office #5 staff following the inspection of the above referenced facility.

The report should be self-explanatory. Please take note of the requirement and reminder listed near the end.

You may contact Bill Gibbons at (515) 725-0335; bill.gibbons@dnr.iowa.gov or this office with any questions or comments.

Sincerely,

Ted Petersen
Supervisor, Field Office #5

c: Judy Andrews, PG, Senior Consultant Environment, WSP (via E-mail – judy.andrews@wspgroup.com)
Tristan Grover, Magellan Midstream Partners (via E-mail – tristan.grover@magellanlp.com)
Matt Culp, Iowa DNR Contaminated Sites Section (via E-mail – matt.culp@dnr.iowa.gov)

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
Field Office #5
7900 Hickman Road, Suite 200, Windsor Heights, Iowa 50324-4404
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REPORT OF INVESTIGATION

INVESTIGATION DATE	**CURRENT:** August 21, 2018	**LAST:** January 7, 2016

TO: Heather V. Tittjung, CHMM, Sr. Environmental Remediation Specialist, Magellan Midstream Partners, LP, One Williams Center, OTC-8, Tulsa, OK 74172

SUBJECT: Magellan Des Moines Terminal at 2503 SE 43rd Street in Pleasant Hill Iowa
Free Product Recovery Inspection and Proposed Changes to Free Product Monitoring and Recovery Plan – Spill Number: 030210-AHB-0849

PERSONS CONTACTED: Judy Andrews, David Coe, Craig Hegna – WSP
Tristan Grover – Magellan Midstream Partners, LC

OBSERVATIONS: On Tuesday, August 21, 2018, I met with David Coe and Craig Hegna with WSP to conduct a free product recovery inspection. The purpose of the inspection was to observe the free product measurement and recovery process in light of a request by WSP to go from quarterly to semi-annual free product recovery reporting and to remove piezometer PZ-12 from the free product monitoring and recovery plan.

The product being recovered is diesel fuel. The following measurements of free product and free product recovery were obtained during the inspection:

Measurements made with Heron oil/water interface probe recorded in feet as depth from the top of the well casing.

Well/Piezometer	Depth to Free Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Amount of Free Product Recovered with Absorbent Sock (gallons)	Amount of Free Product Recovered with hand bailer (gallons)
RW-9	No FP	8.30	--	--	--
PZ-5	No FP	4.53	--	--	--
RW-8	8.62	9.81	0.19	No Sock	0.45
PZ-7	9.20	11.25	2.05	No Sock	0.07
PZ-8	9.13	11.25	2.12	No Sock	0.01
RW-7	Not Measurable	8.69	0.00	0.01	--
RW-6	8.71	9.00	0.29	0.13	0.06
PZ-12	No FP	9.18	--	--	--
PZ-9	8.90	8.91	0.01	No Sock	0.00
PZ-1	8.63	11.33	2.70	No Sock	0.13
RW-4	Not Measurable	8.46	0.00	0.01	--
RW-5	Not Measurable	8.33	0.00	0.03	--
RW08-3	No FP	8.63	--	--	--
RW08-1	Not Measurable	8.52	0.00	0.03	--
RW08-2	8.16	8.5	0.34	No Sock	0.13
Gallons Recovered				0.21	0.85
Total Gallons Recovered					1.06

The recovery wells (designated RW) are 4" in diameter while the piezometers (designated as PZ) are 1" in diameter. The process of free product monitoring (measurement) and recovery was as follows. The wells with absorbent socks were first opened and the socks were removed and wrung into a bucket with measurement lines

on the side. The free product was measured by visually observing the amount of free product floating on top of the water in the bucket. The wells with absorbent socks were allowed to recover to static water level. The remaining wells without socks were opened and free product in the wells and/or static water level was measured with a Heron oil-water interface probe. The wells where socks were removed were then measured for free product and/or static water level using a Heron oil-water interface probe. Hand bailers were used to recover free product from wells that had measurable free product. Free product recovered from each well with a bailer was measured using the bucket with measurement lines on the side.

WSP on behalf of Magellan is requesting to remove piezometer PZ-12 from the free product monitoring and recovery plan. The Iowa DNR leaking underground storage tank site rules state: ***Termination of free product recovery activities. Owners and operators may propose to the department to terminate free product recovery activities when significant amounts of hydrocarbons are not being recovered. The department will consider proposals to terminate free product recovery when the amount of product collected from a monitoring well is equal to or less than 0.1 gallon each month for a year unless another plan is approved by the department. When free product activities have been terminated, owners and operators must inspect the monitoring wells monthly for at least a year. The department must be notified and free product recovery activities reinitiated if during the monthly well inspections it is determined the product thickness in a monitoring well exceeds 0.02 foot. The monthly well inspection records must be kept available for review by the department [567 IAC 135.7(5)"f"].***

Examination of the free product recovery reports for piezometer PZ-12 showed during the 12 month period from November 2016 through October 2017 there was 0.1 gal of free product recovered in November 2016 and no product recovered the remaining 11 months. In the subsequent ten months (November 2017 through August 2018) there has been no free product recovered and only 0.01 feet of product measured in the months of November and December 2017. Therefore, the request to remove piezometer PZ-12 from the free product monitoring and recovery plan is granted; however, free product must be measured in the well for two more months (September and October 2018). If free product thickness measured in PZ-12 for the months of September and October 2018 is 0.02 feet or less (for both months) measurements of free product can be permanently discontinued.

WSP on behalf of Magellan is requesting to go from quarterly to semi-annual free product recovery reporting with reports being submitted in January and July each year. Based on review of the free product recovery reports we find semi-annual free product recovery reporting to be acceptable. Presently, the semi-annual monitoring reports are submitted with the first and third quarter free product reports. Since we are going to semi-annual reporting of free product recovery, the semi-annual monitoring reports should also be submitted in January and July each year. Monitoring results from samples collected in February will be submitted in July and results from samples collected in August will be submitted in January. ***From this point forward free product recovery reports and semi-annual monitoring reports will be due on January 30th and July 30th each year***.

REQUIREMENTS:

- Measure free product in piezometer PZ-12 for the months of September and October 2018. [567 IAC 135.7(5)"f"]. (See the discussion above regarding removal of PZ-12 from the free product monitoring and recovery plan.)

REMINDERS:

- Free product recovery reports and semi-annual monitoring reports are due on January 30th and July 30th.

AUTHENTICATION	
INSPECTOR: Bill Gibbons Bill Gibbons	**DATE: 8/28/2018**
REVIEWER: Bill Gross Bill Gross	**DATE: 8/29/2018**