#12032

# Basic Function Evaluation For Mechanical Leak Detector

Date: 5.20.09

Location: Olson's Truck Stop - 12032
4101 148th St NW
Clearwater MN 55362

Griffin Petroleum Services, Inc.
8700 Xylite Street NE
Blaine, Minnesota 55449
Technician Rob
Tech Num MNG0101091807C

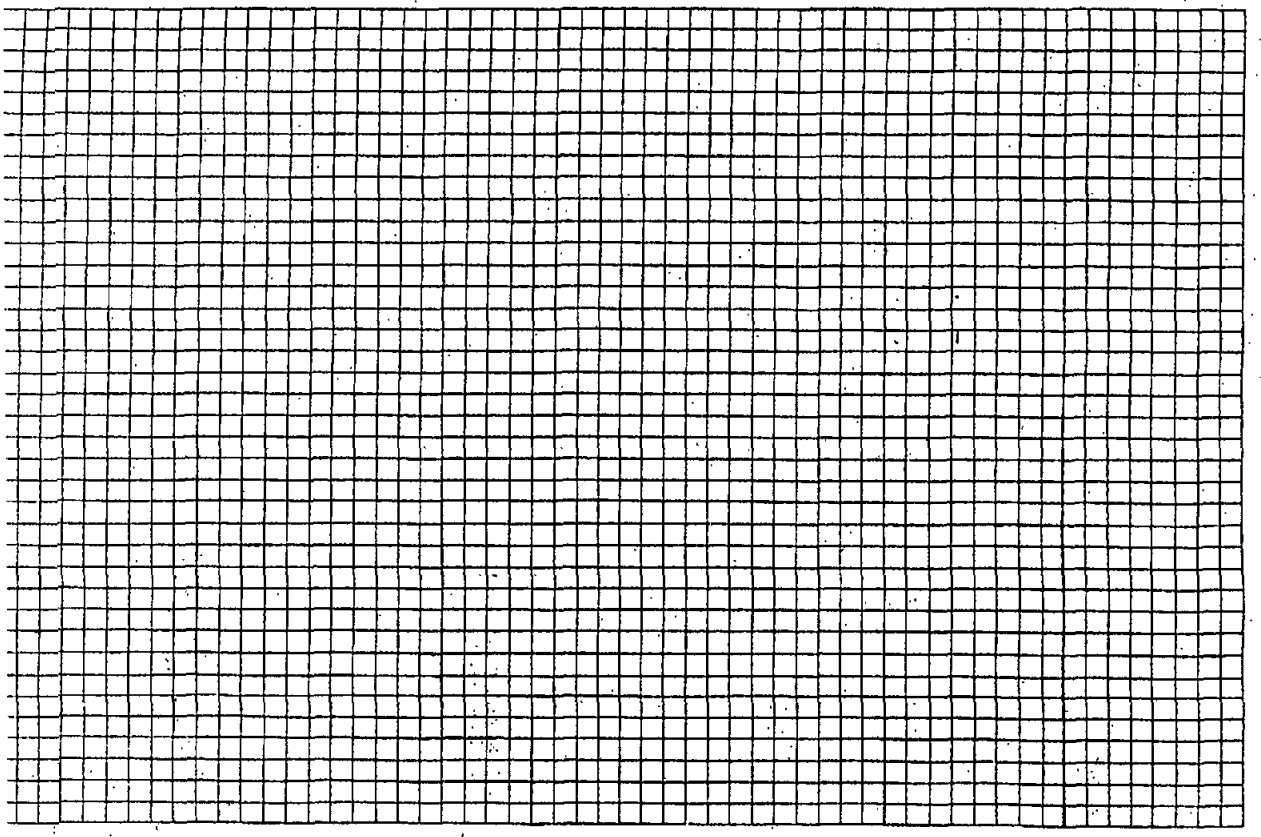
| | Model Type | Product | Opening Time | leak rate | Hold psi | Passed | Replaced Detector |
|---|---|---|---|---|---|---|---|
| 1 | Red Jacket FXV | Reg - unld | West 2 Sec. | 3.0 GPH | 24 psi | X | N |
| 2 | Red Jacket FXV | Mid - unld | 2 Sec. | 3.0 GPH | 24 psi | X | N |
| 3 | FE Petro | Prem-unld | 3 Sec. | 3.0 GPH | 18 psi | X | N |
| 4 | Red Jacket FXV | Reg-unl | East 3 Sec. | 3.0 GPH | 20 psi | X | N |
| 5 | Red Jacket FXV | Diesel #1 | 2 Sec. | 3.0 GPH | 24 psi | X | N |
| 6 | FE Petro | Diesel #2 | 3 Sec. | 3.0 GPH | 23 psi | X | N |

Note:
This test simply tests the ability of the leak detector to go into slow flow position when a leak is simulated at the time of testing.

| 11 IDENTIFY EACH LINE AS TESTED | 12 TIME (MILITARY) | 13 LOG OF TEST PROCEDURES, AMBIENT TEMPERATURE, WEATHER, ETC. | 14 PRESSURE psi OR kPa | | 15 VOLUME | | | 16 TEST RESULTS |
|---|---|---|---|---|---|---|---|---|
| | | | | | BURETTE READING | | NET CHANGE | CONCLUSIONS, REPAIRS AND COMMENTS |
| | | | BEFORE | AFTER | BEFORE | AFTER | | |
| Midgrade | 17:15 | Start line test | | 50 | | | | 120' - 1½" STEEL |
| | 17:30 | | 47 | 50 | .0740 | .0720 | -.0020 | |
| | 17:45 | | 48 | 50 | .0720 | .0710 | -.0010 | |
| | 18:00 | | 49 | 50 | .0710 | .0705 | -.0005 | |
| | 18:15 | | 49 | 50 | .0705 | .0700 | -.0005 | |

SCALE: ☐ 1 PACE = 3 FT. PER SQUARE—THIS SHEET = 168' x 114'
☐ 2 PACES = 6 FT. PER SQUARE—THIS SHEET = 336' x 228'

17 SKETCH OF LOCATION — SHOW: NORTH ↑, STREETS, STATION BUILDING, TANKS, ISLANDS, PIPING (IF KNOWN, OR BEST INFO), PUMPS OR DISPENSERS (USE NUMBERS ONLY IF PERMANENTLY MARKED).



petro TITE LINE TESTER

PN 6265

#12032

For Use With ecto rite

STATION NUMBER 12032 DATE 5-20-09

1 LOCATION Olson's Truck Stop 4101 148th St NW Clearwater MN 55362
Street No. and/or Owner | City | State | Telephone No.

2 OWNER
Name | Address | Representative | Position | Telephone No.

3 OPERATOR
Name | Dealer, Mgr. or Other | Address (if different than Location) | Telephone No.

4 REASON FOR TEST Compliance

5 TEST REQUESTED BY
Name | Position | Telephone No.

6 SPECIAL INSTRUCTIONS:

7 CONTRACTOR OR COMPANY MAKING TEST MECHANIC(S) NAME Griffin Petroleum Services / Robert Headricks

8 IS A TANK TEST TO BE MADE WITH THIS LINE TEST? ☐ YES ☒ NO

9 MAKE AND TYPE OF PUMP OR DISPENSERS (SUCTION OR SUBMERSIBLE) Gilbarco Legacy + Advantage

10 WEATHER Sunny 80° TEMPERATURE IN TANKS 50° °F ____ °C COVER OVER LINES Concrete/Asphalt/Earth (Concrete, Wood, Soil, etc.) APPROXIMATE BURIAL DEPTH 30"

| 11 IDENTIFY EACH LINE AS TESTED | 12 TIME (MILITARY) | 13 LOG OF TEST PROCEDURES, AMBIENT TEMPERATURE, WEATHER, ETC. | 14 PRESSURE psi OR kPa BEFORE | 14 PRESSURE psi OR kPa AFTER | 15 VOLUME READING BEFORE | 15 VOLUME READING AFTER | 15 VOLUME NET CHANGE | 16 REMARKS SIZE, LENGTH & TYPE OF LINE, # FLEX CONNECTORS CONCLUSIONS, REPAIRS AND COMMENTS |
|---|---|---|---|---|---|---|---|---|
| Diesel #1 | 10:00 | Start line test | | 50 | | | | 220'-1½" STEEL |
| | 10:15 | | 44 | 50 | .0660 | .0620 | -.0040 | |
| | 10:30 | | 48 | 50 | .0620 | .0600 | -.0020 | |
| | 10:45 | | 49 | 50 | .0600 | .0595 | -.0005 | |
| | 11:00 | | 50 | 50 | .0595 | .0595 | .0000 | |
| Diesel #2 | 11:40 | Start line test | | 60 | | | | 260'-1½" STEEL |
| | 11:50 | | 48 | 60 | .0520 | .0470 | -.0050 | |
| | 12:00 | | 50 | 60 | .0470 | .0430 | -.0040 | |
| | 12:10 | | 51 | 60 | .0430 | .0400 | -.0030 | |
| | 12:20 | | 52 | 60 | .0400 | .0370 | -.0030 | |
| | 12:30 | | 54 | 60 | .0370 | .0340 | -.0030 | |
| | 12:40 | | 56 | 60 | .0340 | .0320 | -.0020 | |
| Premium | 16:00 | Start line test | | 50 | | | | 120'-1½" STEEL |
| | 16:10 | | 49 | 50 | .0650 | .0650 | .0000 | |
| | 16:20 | | 49 | 50 | .0630 | .0630 | .0000 | |
| | 16:30 | | 50 | 50 | .0620 | .0620 | .0000 | |
| | 16:40 | | 50 | 50 | .0615 ~~.0620~~ | .0615 ~~.0620~~ | .0000 | |
| | 16:50 | | 50 | 50 | .0615 | .0615 | .0000 | |
| | 17:00 | | 50 | 50 | .0615 | .0615 | .0000 | |
| Unleaded | 16:05 | Start line test | | 50 | | | | 120'-1½" STEEL |
| | 16:15 | | 47 | 50 | .0650 | .0630 | -.0020 | |
| | 16:25 | | 48 | 50 | .0630 | .0620 | -.0010 | |
| | 16:35 | | 49 | 50 | .0620 | .0615 | -.0005 | |
| | 16:45 | | 50 | 50 | .0615 | .0615 | .0000 | |
| | 16:55 | | 50 | 50 | .0615 | .0615 | .0000 | |
| | 17:05 | | 50 | 50 | .0615 | .0615 | .0000 | |

**TEST RESULTS**

Tests were made on the above line systems in accordance with test procedures prescribed for ____, as detailed on attached test charts with the results as follows:

| Line Identification | Meets Criteria | Net Volume Change Per Hour | Date Tested |
|---|---|---|---|
| Diesel #1 | Yes | -.0065 | 5-20-09 |
| Diesel #2 | Yes | -.0190 | 5-20-09 |
| Premium | Yes | .0000 | 5-20-09 |
| Unleaded | Yes | ~~-.0085~~ -.0035 | 5-20-09 |
| Midgrade | Yes | -.0040 | 5-20-09 |

17 CONTRACTOR CERTIFICATION

Technician Signature

Certification # MNGO1010918071C

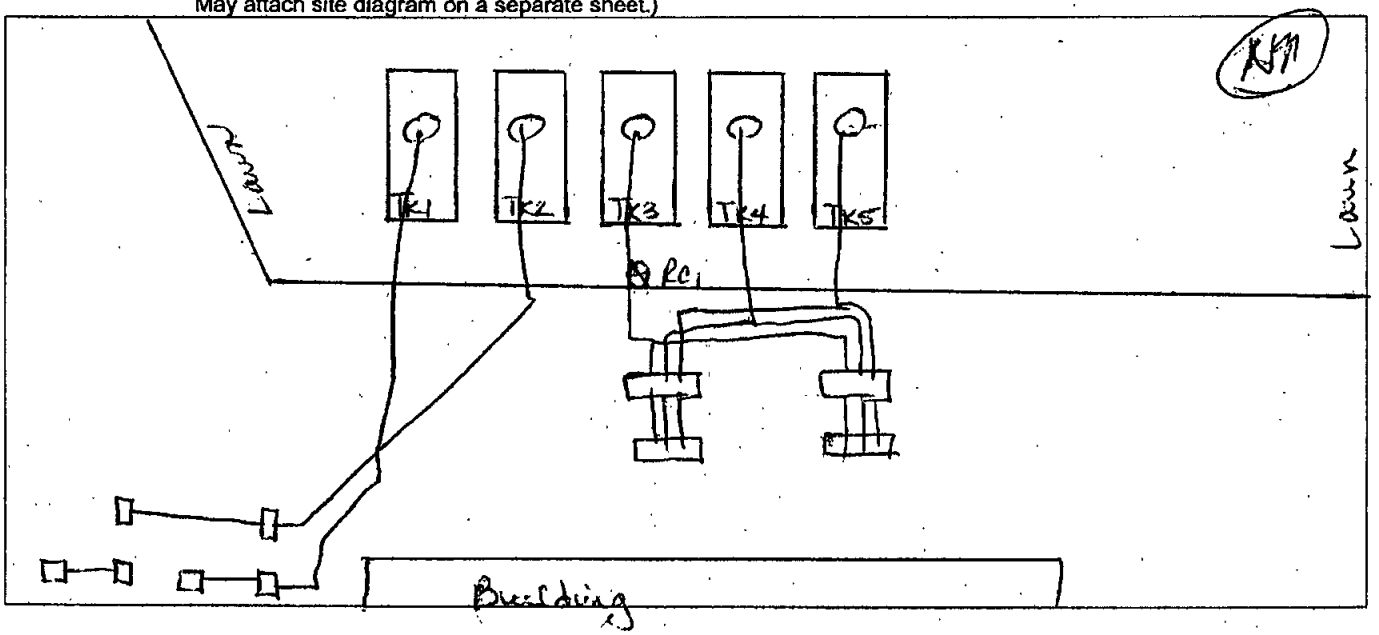
## Test Results

| Test Point | Structure description | *Structure to Soil Potential - Volts | | | | | Structure Status (connected or isolated to CP system) |
|---|---|---|---|---|---|---|---|
| | | Rectifier ON | Instant OFF | Depol reading | Depol change | Native (max depolarization) | |
| (example) | Tank 1 bottom tank at fill | -1.175 | -926 | -650 | -276 | -531 | PASS |
| 1 | Tank1, bottom tank @ fill | -1.925 | -930 | -890 | -.040 | -714 | pass |
| 2 | Tank2, | -1.934 | -951 | -904 | -.047 | | pass |
| 3 | Tank3, | -1.957 | -970 | -928 | -.042 | | pass |
| 4 | Tank4, | -1.974 | -976 | -938 | -.038 | | pass |
| 5 | Tank5, | -1.983 | -981 | -941 | -.040 | | pass |
| 6 | Line1, at STP | -1.824 | -922 | -914 | -.008 | | pass |
| 7 | Line2, | -1.869 | -921 | -916 | -.005 | | pass |
| 8 | Line3, | -1.921 | -933 | -916 | -.017 | | pass |
| 9 | Line4, | -1.945 | -945 | -918 | -.027 | | pass |
| 10 | Line5 | -1.952 | -960 | -921 | -.039 | | pass |
| 11 | Line1, at disp piping | -1.602 | -902 | -890 | -.012 | | pass |
| 12 | Line2, | -1.647 | -908 | -887 | -.021 | | pass |
| 13 | Line3, | -1.899 | -918 | -892 | -.026 | | pass |
| 14 | Line4, | -1.921 | -921 | -894 | -.027 | | pass |
| 15 | Line5, | -1.931 | -942 | -908 | -.034 | | pass |
| 16 | | | | | | * reading from conduit @ | |
| 17 | | | | | | cathodic power source | |
| 18 | | | | | | | |
| 19 | | | | | | | |

* All structure to soil potentials are negative unless otherwise noted.
All **OFF** structure to soil potentials must be 0.850V or more negative to meet criteria **OR** depolarization voltage must be at least **.100V** less than **Instant OFF** voltage to meet criteria.

**Rectifier setting:** not available this system **Measured rectifier output:** 12 V 7 A

**Site Diagram** (Show location of all tanks, piping, and dispensers. Show each half-cell placement. Number each test point. May attach site diagram on a separate sheet.)




Signature of Cathodic Protection Expert: _____ Date of evaluation: (mm/dd/yyyy) _____

#12032

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

# Underground Storage Tanks

## Cathodic Protection System Evaluation
## Impressed Current Type

| MPCA Use Only | |
|---|---|
| Site #: | |
| County: | |
| Date rec'd: | |

Submit this form to the MPCA **within 30 days** after conducting an evaluation of a regulated underground storage tank (UST) system with an **impressed current type** cathodic protection system.

**Ways to submit:**

- Mail: Attn: Joann Henry at above address
- Fax: 651-297-2343 or 651-297-8683, Attn: Joann Henry

**Important:**

- Form must be completed and signed by a qualified Cathodic Protection Expert.
- Evaluation must be in accordance with NACE RP0285, Corrosion Control of UST Systems by Cathodic Protection.
- At least two test points per tank and per piping run must be utilized.
- A site diagram showing tank and piping locations and reference cell placement must be provided.
- **Incomplete and unsigned forms will be returned.**

### Site Information

Site name: Olsons Trucke Stop
Address:
City: Hasty State: MN Zip code:
Phone: County: Site # (if known):

### Owner Information

Site name: Ron Olson Phone:
Address:
City: State: Zip code:

### Cathodic Protection Expert Information

Site name: Westside Equipment
Address: 902 West Hwy 55
City: Medina State: MN Zip code: 55340
Phone: 763-478-9572 STI certification #: CP-SP13-04 NACE certification #:

### Reason for Evaluation

- [x] Routine annual evaluation
- [ ] Re-evaluation within six months of installation
- [ ] Re-evaluation with six months of a repair/modification

### Result of Evaluation

- [x] Pass -850 mV — Structure to soil potential more negative than -850 mV when protective current interrupted (Instant off). All protected structures at this facility pass the cathodic protection evaluation. Cathodic protection is adequate to protect the UST system.
- [x] Pass 100 mV — Structure tested exhibits at least 100 mV cathodic depolarization (decay) after protective current disconnected or turned off. All protected structures at this facility pass the cathodic protection evaluation. Cathodic protection is adequate to protect the UST system.
- [ ] Fail — One or more protected structures at this facility fail the cathodic protection evaluation. Cathodic protection is inadequate to protect the UST system. **See results on back.**

### Action Required

- [x] None — Cathodic protection is adequate. No further action is necessary at this time.
- [ ] Repair & Retest — Cathodic protection is not adequate. Repair/modification is necessary as soon as possible, not to exceed 60 days. Re-evaluation required within 6 months of repair/modification.

**Test again no later than** (mm/dd/yyyy):

# GRIFFIN PETROLEUM SERVICES, INC.

## Contracting – Sales – Installation - Service

| | |
|---|---|
| Date: 6/4/2009 | Number of pages (including cover): 6 |
| To: Jennifer Lopac | From: **Pat Kinney – Service Manager** |
| Company: MPCA | **Griffin Petroleum Service, Inc.**<br>**8700 Xylite St NE, Blaine, MN 55449** |
| Phone Number: 651-757-2592 | Phone Number: **763-780-6332 x308** |
| Fax Number: 651-205-4593 | Fax Number: **763-780-5927** |

Test Results for Site 12032

Olson's Truck Stop
4101 148th Street NW
Clearwater, MN 55320
763-878-1655