

INSPECTION REPORTS

FACILITY INSPECTION

SUNCO WDW No. 1 API# 30-045-28653 (UICI-005)

December 2, 2014

Time: 11:35 a.m.

Weather: 50°F Overcast

Agua Moss LLC: Jeff Davis (Owner) & Shacey Murray (Student Intern)

Merrion Oil & Gas Operator: Philana Thompson & Ryan Davis

OCD Inspectors: Monica Kuehling, Cory Smith & Carl Chávez

Location: N 36.75737 W 108.07279

Introduction: The facility inspection was conducted after the meeting at Merrion Oil & Gas in Farmington, NM.

Field Inspection Observations:

- No C-141 releases received and facility appeared visually aesthetic and clean. The operator has redesigned and renovated the facility by installing tanks and new housing units at the facility. The operator is awaiting OCD Santa Fe approval of the Surface Waste Management Facility (SWMF) Closure Plan so it may proceed to decommission ponds, soil mixing bays, etc. associated with that permit.
- C-138 Forms: Few forms were observed from generators delivering oilfield non-exempt wastes to the facility for exposure. Some forms were incomplete and lacked supporting hazardous waste characterization data. The operator appears to need to reevaluate the C-138 Form generator submittal receipt, review and approval process to account for waste generator deliveries of oilfield exempt vs. oilfield non-exempt wastes for disposal at the facility. For oilfield non-exempt wastes, the operator needs to be more aware of generator waste site-specific changes and time period to require new C-138 Forms with analytical data, etc. for review and approval of wastes received at its facility.
- Well Sign: The operator must ensure that a well sign with required well information is posted on the tank that encapsulates the wellhead.
- Continuous Chart Recorder: The chart recorder should be recalibrated at least every 6 months or semi-annually. The last calibration was over a year from inspection date. A protocol for changing charts should be developed to help eliminate apparent annulus pressure anomalies observed in past charts, i.e., turn off air manifold to de-pressurize pens before changing each new chart; align new chart with pen at chart zero line, etc. If the anomalous annulus pressure fluctuations continue to be observed, OCD may require additional measures to verify that the fluctuations are not well mechanical integrity related; however, a recent MIT witnessed by OCD passed.
- Quarterly Monitoring: The operator currently is not required under the State permit to conduct characteristically hazardous monitoring. The operator was informed that in order to immediately satisfy the Federal Underground Injection Control (UIC) Regulations that it must begin quarterly monitoring for characteristically hazardous constituents, i.e., ignitability, corrosivity, and reactivity. OCD indicated that it would send information on the associated Analytical Laboratory Methods. In addition, for C-138 Forms above in Item 2, the operator shall ensure that generators of oilfield non-exempt wastes also provide the analyses required by the operator for approval before disposal into its UIC Class I (non-hazardous) Disposal Well.

OCD Requirements Based on the Meeting and Facility Inspection:

- 1) OCD requires a well sign to be installed on the tank encapsulating the wellhead within 60 days from the date of this letter.
- 2) OCD requires a C-138 Form (form) or equivalent protocol for the operator to receive and evaluate waste generator submitted forms for approval or rejection to ensure that only oilfield exempt and oilfield non-exempt (non-hazardous) waste fluids are injected into the UIC Class I (non-hazardous) disposal well within 30-days from the date of this letter.
- 3) OCD requires a “Continuous Chart Recorder Change” Protocol be developed by the operator and submitted to OCD within 30-days from the date of this letter. The protocol should also address chart recorder calibration frequency by a third party and record retention.
- 4) OCD requires in addition to the current quarterly environmental monitoring schedule to include characteristically hazardous monitoring on a quarterly basis from now on.

Conclusions:

- 1) OCD- SF issued a letter dated December 10, 2014 requiring submittals to OCD to correct some of the above meeting and/or field inspection observations and findings.

OCD Facility Inspection (12/2/2014)



Looking SW away from filling dock



Looking W off facility property at Key Tanks



Looking S at office and filling dock



Looking South at tanks and filling dock



Looking E at Accumulator Tank



Looking E at Bulk Storage Tank

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Looking SE at Tanks in series feeding into



Solids Holding Tank at S End of Tank Battery



Looking E at Produced Water Holding Tanks



Looking N-NW at Central Tank Battery



Looking E at Solids Holding Tank and Pit



Looking E-NE at Fresh Water Holding Tanks



Looking SE at Solids Holding Tank and Pit



Looking NW at Office



Looking NW at Pump House and Electrical Building with Ethylene Glycol Saddle Tank



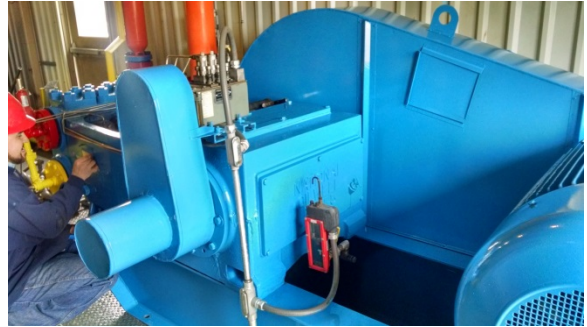
Inside Electrical Building near Pump House



Looking SE at Tank Battery



Water spigot outside SW side of Pump House



New pump in pump house to increase injection rate



Pump lubrication fluid level meter



New pump



Yellow low-pressure & Red high-pressure lines in pump house



Incoming Tank Effluent Line into Pump House



Low pressure gauge on Effluent Line w/ Fire Extinguisher



Additional Pumps supplemented by 2 larger Pumps within Pump House



Maximum Surface Injection Pressure with Murphy Auto Shut-Off Switch in Pump House



Low-pressure line gauge in Pump House



Flow Meter Totalizer with 20micron/5micron Filters in background



Flow Meter Totalizer in Pump House



In-line pressure gauges on Filtration Unit



20micron/5micron Filtration Unit



Pump No. 2 in Pump House (two large pumps capable of ~ 155 gpm)



Pump house drainage grates



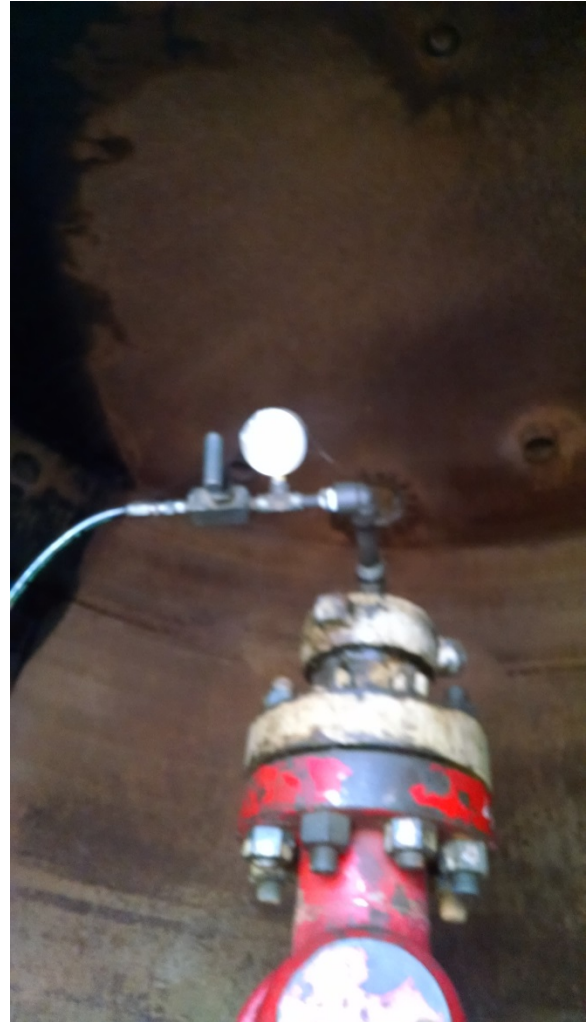
SUNCO WDW No. 1 with Chart Recorder
Encapsulated by Modified Tank (no well sign
evident)



Above ground holding tank connected to pump
house drainage and filter change units



Pump turned on at ~ 167 bbls/hr at 1,800 psig
well below MSIP of 2,400 psig



Gauge at top of injection well Christmas tree



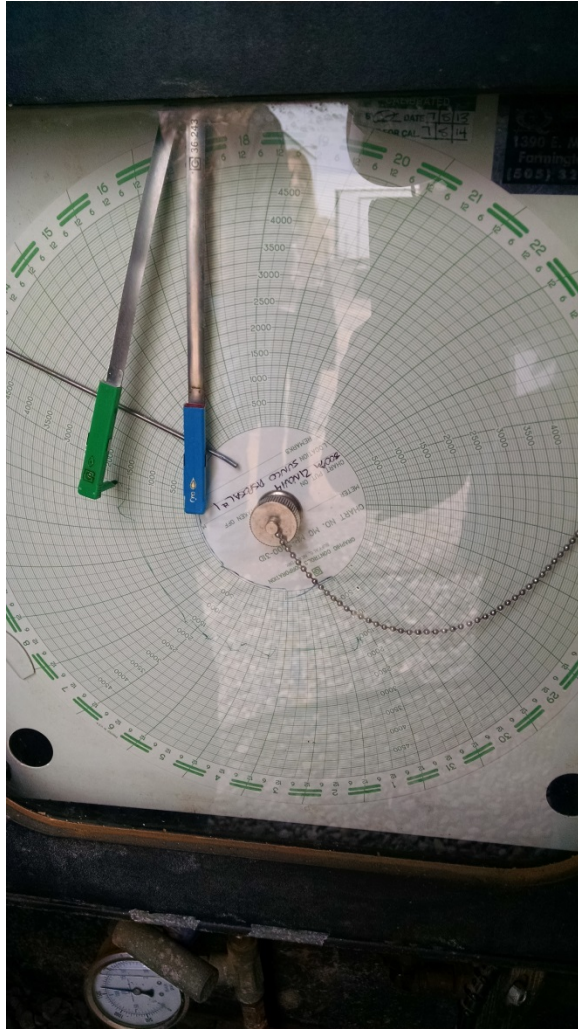
Bradenhead gauge at bottom of injection well



Surface injection pressure gauge



Bradenhead gauge



Pump started and annulus pressure flat and not anomalously fluctuating. Well is operating below the MSIP of 2,400 psig.



Bradenhead gauge at base of well head



Looking at top of well Christmas tree



Looking W-SW at Key Tanks W of Agua Moss Facility



Looking N-NE across E property line



Looking E toward office and Tanks from Surface Waste Management Facility



Looking W at abandoned Key Tanks and Soil Mixing Bays on Surface Waste Mgt. Facility



Looking E at Central Tank Battery in Series from N to S (Surface Waste Management Facility Soil Mixing Pad Bay in Foreground)

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Surface Waste Management Facility
Evaporation Pond slated for Decommissioning



Looking E at Central Tank Battery
(interconnected tanks extend S before injection)



Looking E at sample port at S end of tanks
before effluent line to pump house for injection



Looking E-SE at pump house

OCD ENVIRONMENTAL BUREAU

SITE INSPECTION SHEET

DATE: 10/30/01 Time: 11:33 AM

Type of Facility: Refinery ☐ Gas Plant ☐ Compressor St. ☐ Brine St. ☐ Oilfield Service Co. ☐
Surface Waste Mgt. Facility ☒ E&P Site ☐ Crude Oil Pump Station ☐
Other ☐ _____

Discharge Plan No ☐ Yes ☒ GW# MIC-CLI-1005

FACILITY NAME: KEY WATER DISPOSAL - SOURCE WELL DISPOSAL #1

PHYSICAL LOCATION: _____

Legal: QTR QTR Sec 2 TS 29N R 12W County SAN JUAN
NLE

OWNER/OPERATOR (NAME) - KEY ENERGY SERVICES -

Contact Person: _____ Tele:# _____

MAILING ADDRESS: _____ State _____ ZIP _____

Owner/Operator Rep's:
MIKE TALOVICH

OCD INSPECTORS: W PRICE, D FOUST

1. **Drum Storage:** All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

OK

2. **Process Areas:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

OK

3. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

OK

4. **Above Ground Saddle Tanks:** Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

OK

5. **Labeling:** All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

OK

6. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

OK

7. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to discharge plan renewal. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

OK

8. Onsite/Offsite Waste Disposal and Storage Practices: Are all wastes properly characterized and disposed of correctly?

Does the facility have an EPA hazardous waste number? _____ Yes _____ No

ARE ALL WASTE CHARACTERIZED AND DISPOSED OF PROPERLY? YES NO IF NO DETAIL
BELOW.

OK

9. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

ANY CLASS V WELLS NO ☒ YES ☐ IF YES DESCRIBE BELOW! Undetermined ☐

10. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

Good

11. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the proper OCD District Office.

NA

12. Does the facility have any other potential environmental concerns/issues?

13. Does the facility have any other environmental permits - i.e. SPCC, Stormwater Plan, etc.?

HAVE A RUN-OFF BERM AROUND TANKS

14. ANY WATER WELLS ON SITE? NO ☒ YES ☐ IF YES, HOW IS IT BEING USED ?

15. Documents reviewed:

NONE

Miscellaneous Comments:

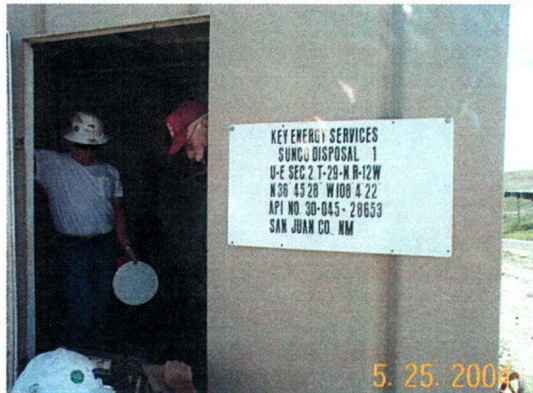
WELL DOES NOT HAVE PRESSURE MAINTAINED ON ANNULUS.

Photos taken: 17 - ROOMS - FILE

Documents Reviewed/Collected:



Well House- rigging up pressure chart recording for MIT test. See well file for results and chart.



Key Class I well house.



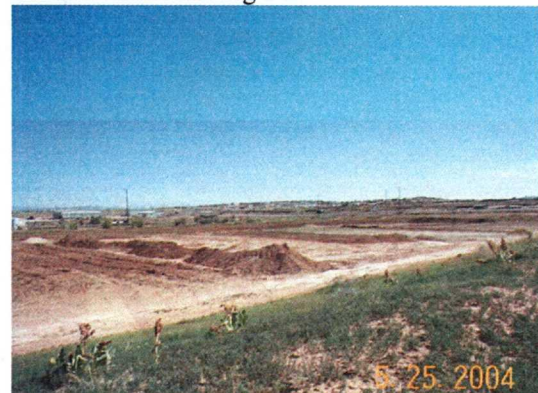
Back side braden test valve.



Well Pump Suction Tank and Lines.



Landfarm area looking NE.



Same.



Off-loading area.



Skim pit leak detector-noted DRY.



Single lined steel pit. Standing oil and water.



Same as above.



Another steel single line pit.