

BASMAA CW4CB Task 4 – Field Methods Report for Leo Avenue Cleanout Sampling

Prepared by Kinnetic Laboratories Inc.

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1.0 Field Sampling Procedures

Sediment sampling equipment was prepared in the laboratory prior to sampling. Sampling equipment included:

- Stainless steel sampling scoops and spoons
- Stainless steel and Tefzel-coated compositing buckets
- Wash bottles and storage containers for deionized water
- Wash bottles for hydrochloric acid and methanol

Prior to sampling the equipment was thoroughly cleaned. Equipment was soaked (fully immersed) for three days in 2% Micro[®] solution and deionized water. Equipment was then rinsed three times with tap water to remove the soap, then rinsed three times in deionized water and then allowed to dry in a clean place. Equipment was then rinsed with a 1.0% solution of hydrochloric acid, followed by a triple rinse with deionized water to eliminate the acid. A rinse with reagent grade methanol was then followed by another triple rinse with deionized water. Equipment was then allowed to dry in a clean place. Equipment was wrapped in aluminum foil or stored in clean Ziploc bags until used in the field.

Field data sheets were filled out describing environmental conditions including descriptive details of the sediment and water collected. Photographic documentation was reported on an associated photo log. Photographs were taken documenting the sampling sites with each photograph listed in the photo log with time, date, location, description of the subject photographed, and the name of the person taking the photograph.

Sediment samples collected were placed directly into compositing buckets which were covered with aluminum foil when not in use. No sieving of sediments was performed in the field, however, larger debris and cobble were removed from the samples. At the conclusion of sample collection, all sediment was composited in the bucket and then subsampled for distribution to the appropriate laboratories. Disposable powder free nitrile gloves were worn while collecting water and sediment samples, and compositing sediment samples to mitigate potential contamination. Gloves were changed between each sample to reduce the potential for cross-contamination.

Samples were labeled for proper identification in the field and for tracking in the laboratory. The sample labels contained the following information: station location, date of collection, analytical parameter(s), and method of preservation.

At the conclusion of sample processing; all samples were wrapped in protective bubble wrap and stored on ice in the field. At the conclusion of the day's sampling, all samples were either stored overnight in KLI's refrigeration unit or delivered directly to the analytical laboratories.

2.0 Sample Chain-of-Custody Forms and Custody Seals

All sample shipments for analyses were be accompanied by a Kinnetic Laboratories chain-of-custody record (COC). COCs were completed and sent with samples for each laboratory and each shipment. The COC identified the contents of each shipment and maintained the custodial integrity of the samples.

3.0 Leo Avenue Storm Drain Line Cleanout Sampling

The sampling of the storm drain line at Leo Avenue was performed on 17 June 2014. The field sampling crew consisted of Jonathan Toal of Kinnetic Laboratories Inc. and Michael Founds of 2ND Nature LLC. The field crew initially arrived at Leo Avenue at approximately 09:30. Mr. Jordan Ciprian (Environmental Services – Watershed Protection at City of San Jose) met the field crew at the site location.

3.1 LEO-01 – 37.31034°N; 121.86526°W

The sediment sample was collected by scooping a mixture of soil types with a stainless steel scoop from the manhole at the western end of Leo Avenue. This manhole is nearest the end of the cul-de-sac. Though this is considered the end of the storm drain line there is an apparent plugged line directed into the pipe from the west. A previous investigation on the Sims Metals Management property, directly west and across the railroad line right away, failed to find any catch basins, manholes, or other inputs that would lead to this plugged line in the manhole sampled. A blind field duplicate sample (LEO-02) was collected for submittal to the analytical laboratory. Sample collection was completed at 10:15.



3.2 LEO-03 – 37.31090°N; 121.86440°W

The sediment sample was collected by scooping a mixture of soil types with a stainless steel scoop from two manholes downstream from LEO-01. The first manhole sampled was in front of the driveway of 220/240 Leo Avenue. The second manhole was the in front of VN Autobody. Sediment from the first manhole was submerged, dark brown and had a distinct petroleum odor with what appeared to be oil in the sediment. The second manhole had exposed brown sediment.

A composite of sediment from the two manholes was necessary to acquire enough material for the requested analyses. Sample collection was completed at 11:00.

