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By Alameda County Environmental Health at 12:10 pm, Aug 01, 2014

**SITE STATUS REPORT
AND
DATA GAP WORK PLAN**

BP #11104 - 1716 Webster Street,
Alameda, Alameda County, California 94501

Fuel Leak Case No. RO0000281
Global ID # T0600101651

Submitted to:

**Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577**

Prepared by:



ALFA Environmental Remediation Services, Inc.
9000 Crow Canyon Road, Ste. S
Danville, CA 94506

(925) 308-9200 (916) 376-9159 (559) 408-5510
Fax: (888) 802-1634

July 31, 2014

Delong Liu
2501 North Main Street
Walnut Creek, CA 94597

July 29, 2014

Re: Site Status Report and Data Gap Work Plan
Former BP Service Station No. 11104
1716 Webster Street
Alameda, California
ACEH Case #RO0000281

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Submitted by,

A handwritten signature in blue ink, appearing to be 'DL', is written over a faint, light blue circular stamp or watermark.

Delong Liu
President.



Alfa Environmental Remediation Services, Inc.

9000 Crow Canyon Rd. Suite S
Danville CA 94506
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July 31, 2014

via e-mail: delongliu@yahoo.com
mark.detterman@acgov.org

Mr. DeLong Liu
DeLong Oil, Inc.
2501 North Main Street
Walnut Creek, CA 94597

RE: Site Status Report and Data Gap Work Plan - Fuel Leak Case No. R00000281;
(Global ID # T0600101651); BP #11104 1716 Webster Street, Alameda, CA 94501

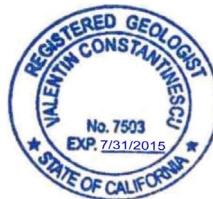
Dear Mr. DeLong,

Please see attached the " Site Status Report and Data Gap Work Plan" requested on June 10, 2014 by Mr. Mark E. Detterman, PG, CEG, Senior Hazardous Materials Specialist with the Alameda County Environmental Health Services (ACEH).

This Report was prepared in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists.

This Report will be uploaded to ACEH and Geotracker data bases.

ALFA ENVIRONMENTAL REMEDIATION SERVICES, INC.



Valentin Constantinescu, P.G. #7503 exp. 7/31/2015
Senior Project Manager

Site Status Report and Data Gap Work Plan 1716 Webster Street, Alameda, CA 94501

1.0 INTRODUCTION

This Work Plan has been prepared by ALFA for Mr. Delong Liu, property owner, for submission to the ACEH.

On June 10, 2014 by Mr. Mark E. Detterman, PG, CEG, Senior Hazardous Materials Specialist with the Alameda County Environmental Health Services (ACEH), requested a "Site Status Report and Data Gap Work Plan" be submitted.

2.0 GENERAL LEAD OVERSIGHT AGENCY REQUIREMENTS

- Document soil excavation and import activities and damage to groundwater monitoring wells. Document the recent site activities: *"areas of soil excavation relative to existing structures (building, dispensers, underground storage tanks (USTs), monitoring wells, soil bores, etc.), the depth of soil excavation or removal, analytical data characterizing the excavated soil, waste manifests for the soil including total yardage figures, documentation of imported backfill material (source and contaminant characterization, if recycled AB)"*.
- Status and condition of all wells at the site; therefore, *"conduct an evaluation of the integrity of all onsite monitoring wells and provide photographs, descriptions of well and wellhead conditions, tagging of total well depths, down hole camera survey results (if appropriate), and proposed repair or replacement of damaged wells, and a resurvey of repaired wells to Geotracker standards"*
- *"Until the integrity of well RW-1 has been evaluated, the requirement for collection of samples of groundwater and LNAPL is suspended"*
- LNAPL in Vicinity of Former Waste Oil.
- Evaluate potential impacts from the waste oil release to adjacent downgradient residential buildings



3.0 SCOPE OF WORK

3.1 Document soil excavation and import activities

According to documents (see attached), approximately 41 tons of soil were transported and disposed of at Altamont Landfill by Den Beste Transportation. Sampling activities, soil transport, and disposal and importing soil, are documented in ALFA's Reports submitted between September 2013 - December 2013. According to Mr. Liu, owner, approximately 6" to 2 ft of soil was excavated in the new Market Store area (see Figure, attached) during recent site development activities and no soil sampling was done since the excavated soil was used on site and was compacted. No soil was imported for the development activities.

3.2 Status and condition of all wells at the site

An evaluation of the integrity of all onsite monitoring wells was done and attached please see photographs of MW-1 and RW-1 which appear not to be damaged.

Groundwater samples from MW-1 and RW-1 will be collected and analyzed quarterly or as needed (i.e. during future pilot tests) and analyzed for TPHg, TPHd, TPH-Hydraulic Oil, O&G, BTEX, and MTBE using EPA Methods - with Silica Gel cleanup.

The groundwater monitoring wells MW-2 and MW-3 have been destroyed. We propose the two damaged wells be destroyed under permit and new monitoring wells be installed at locations to be determined after the lateral and vertical extent of soil/groundwater investigation is completed.

Well Destruction

The two damaged groundwater monitoring wells designated MW-2 and MW-3 will be destroyed as per recommended minimum standards as provided in DWR's Bulletin No. 74-2, "Water Well Standards: Alameda County" (June, 1964); Bulletin No. 74-81, "Water Well Standards: State of California" (December, 1981), together with the supplemental standards of DWR Bulletin No. 74-90, "California Well Standards; Water Wells, Monitoring Wells, and Cathodic Protection Wells" (June, 1991), and subsequent revisions and/or supplements.



If pollutants or contaminants are discovered during the well destruction process, ACEHS will be notified and contaminated materials will be properly contained and disposed of.

All PVC and other non-steel cased wells will be destroyed by drilling and removing all well construction materials such as casing, screen, cement seal, gravel or sandpack, etc. to the full depth and diameter of the original boring; the hole will then be backfilled with approved sealing materials.

Sealing materials will consist of the following:

(1) Water

The water used to prepare sealing mixtures will be of drinking water quality.

(2) Grout

The sealing material will be a neat cement grout composed of one sack of Portland Type I/II Cement (94 lbs.) or Portland Type II/V to five gallons of clean water or a sand-cement slurry with a minimum of eleven (11) sacks of Portland Cement per cubic yard of sand-cement slurry. The sand-cement slurry will be mixed at a batch plant; mixing of sand-cement slurries onsite is not allowed. Cement-based sealing materials will be mixed thoroughly to provide uniformity and ensure that no lumps exist.

(3) Bentonite

Bentonite is allowed as an additive to cement-based sealing mixes, at a ratio of up to 5% percent by weight of cement used. Bentonite will not be used as a sealing material.

The sealing material will be placed in one continuous operation until the specified interval or borehole is filled:

Tremie Grouting



If standing water is present, the sealing material will be placed by means of a tremie pipe (maximum diameter of 3 inches) lowered to within three (3) feet of the underlying layer of material or bottom of the well. The sealing material will be placed in one continuous operation until the specified interval or borehole is filled. The end of the tremie pipe will remain in place in the sealing material until placement is complete.

After the well is properly sealed, a hole will be excavated around the well casing to a depth of five (5) feet below ground surface and the well casing removed to the bottom of the excavation.

The sealing material used for the upper portion of the well will be allowed to spill over into the excavation to form a cap. After the well has been properly filled, including sufficient time for sealing material in the excavation to set, the excavation shall be backfilled to finished grade with compacted material, to conform to native conditions.

Groundwater Monitoring Wells

MW-1 and RW-1 will be sampled quarterly to determine any LNAPL in the northwestern area of the property.

Based on results of the subsurface investigation to determine the lateral and vertical extent of contamination in the former WOT area (see attached Figure), a separate workplan for new groundwater monitoring wells installation will be submitted. The location of the new groundwater monitoring wells will be most likely in the former WOT area, in the southeastern portion of the property.



ALFA proposes to install additional groundwater monitoring wells to collect and analyze additional soil samples and to determine the groundwater flow direction and gradient and monitor the groundwater quality.

ALFA will acquire a groundwater monitoring well-installation permit from the ACEHS and notify the ACEHS inspector. ALFA will notify the Underground Storage Alert to request delineation of public underground utilities. A private utility survey will be completed on site. As a further precaution, the boring location will be probed to a depth of 4 feet with a hand auger before drilling.

Each well will be constructed using a truck-mounted drill rig equipped with a continuous-flight, hollow-stem augers by a C-57 licensed driller, under the direction of ALFA's geologist. Soil samples will be obtained at 5 ft intervals, for logging using the Unified Soil Classification System. Soil samples will be acquired within a California Modified Split-Spoon Sampler driven 18 inches into undisturbed soil using a standard 30-inch drop of a 140-pound hammer. The number of blows needed to drive the sampler each 6-inch increment was counted and recorded to evaluate the relative consistency of the soil. The sampler will be fitted with clean brass sleeves 1.9 inches in diameter by 6.0 inches in length. Upon opening the sampler the lowermost sample tube (with no headspace) contained within will be removed and its ends promptly covered with teflon pads fitted with plastic caps, and sealed with duct tape. Sample tubes will be labeled with the project name, sample ID, date, time, and depth of sample collection, placed on water ice in a cooler at a temperature of 4 degrees Celsius (checked in the field using a thermometer), for transport to a State Certified hazardous waste analytical laboratory under chain of custody. The holding time will not exceed 14 days. Soil samples will be field screened for the presence or absence of VOCs or volatile hydrocarbon contamination utilizing a portable (calibrated) field photoionization detector (PID).

Following completion of the drilling and soil sampling, the boring will be converted into a 2" inside-diameter, flush threaded, Schedule 40 PVC risers attached to 0.020" slotted PVC screen. The slotted screen will extend approximately fifteen feet below and five feet above the water table to account for fluctuations in groundwater elevation. The annular space around the screen, and two feet above the screen will be filled with #3 Monterey silica sand. The sand will be covered by bentonite seal composed of 1/4" pellets hydrated with distilled water to protect groundwater from surface infiltration.



Please note that presented above is a generalized description of the well construction, based on our experience in the area. The above mentioned depths and intervals could change based on actual depths to groundwater and lithology encountered during the field activities.

All wells will be developed and sampled in accordance with protocol set forth by the RWQCB in the document titled "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks...Tri-Regional Recommendations".

The wells will be allowed to equilibrate, and after at least three days, developed by pumping more than five volumes from the well using a pump. The following day, the well will be purged. Prior to initiation of field work, ALFA staff will notify the ACEH inspector. Depth to static groundwater within each well will be measured with an electrical tape prior to purging. Following calculations to determine well casing volumes, the well will be then purged of more than three well volumes using a peristaltic pump until temperature, pH, and electrical conductivity measurements stabilized and the water was observed to be relatively non-turbid. Measurements of pH, conductivity and temperature will be acquired and recorded in a Well Monitoring Form.

After the well has been purged, recharged, and stabilized, water samples will be acquired within a clean, disposable polyethylene bailer lowered to a point just below the surface of the water table. Upon bringing the bailer to grade, the sample will be promptly transferred to Volatile Organic Analysis (VOA) vials containing sufficient HCl preservative to reduce the sample pH to <2.0 with care given to minimize off-gassing. The vials when filled will have no headspace bubbles formed when inverted.

Each container will be labeled with the project name, sample ID, date, and time of sample collection, placed in a cooler on water ice at a temperature of 4 degrees Celsius (checked using a thermometer), for transport to a State Certified hazardous waste analytical laboratory under chain of custody.

Groundwater samples will be collected and analyzed quarterly or as needed (i.e. during future pilot tests) and analyzed for TPHg, TPHd, TPH-Hydraulic Oil, O&G, BTEX, and MTBE using EPA Methods - with Silica Gel cleanup.



Drill cuttings and the surge and purge water from the wells will be stored in labeled and covered 55-gallon DOT-approved drums. These drums will be stored on-site pending development of an appropriate disposal protocol.

Wellhead Survey

Following the completion of the monitoring wells, a California licensed surveyor will survey the northing and easting of the monitoring well using Datum NGVD29 or NAD 88. The monitoring well elevations will be surveyed relative to mean sea level, with an accuracy of +/- 0.01 foot. A global positioning system (GPS) will also be used to survey in the latitude and longitude of the wells to be uploaded into California's Geo Tracker database system. The survey of the well locations will be to sub-meter accuracy.

3.3 Soil/Groundwater investigation

The vertical and lateral extent of affected soils and possible impact to groundwater will be defined by analyzing soil and grab groundwater samples collected during the drilling of ten (10) soil boring. Additionally, ACEH requested that Delong Oil evaluate potential impacts from the waste oil release to adjacent downgradient residential buildings. The proposed location and designation of the ten soil borings is shown on Figure 1, attached.

Prior to conducting field activities, a Health and Safety Plan (HASP) will be prepared for the proposed field sampling activities. Results from previous on-site were used to select the direct-push sampling location. Prior to conducting field activities, ALFA will conduct a site visit to mark the direct-push sampling location as required by Underground Service Alert for underground utility identification.

The proposed soil boring locations are presented on Figure 1, attached.

Borings will be advanced using Geoprobe[®]/Hydro-punch direct push equipment. All samples will be logged by a California-Registered Professional Geologist (PG #7503) using the Unified Soil Classification System (USCS) per American Society for Testing and Material (ASTM) method D-2488. A 2-3/8-inch diameter dual-tube sampling rod will be hydraulically advanced to collect continuous in-situ soil samples. The sample rod, with a clear polyvinyl chloride (PVC) liner inside it, will be advanced at four-foot intervals. To collect the sampling rod will



then be withdrawn along with the soil-containing PVC liner. A new PVC tube liner will be attached to the sample retrieval rods and the process repeated at 4-foot intervals to reach the targeted sample depth.

Immediately upon removing the plastic tubing containing the soil, the tubing will be cut at those corresponding depths and a photo-ionization detector (PID) will be used to measure concentrations of volatile organic compounds in soil samples collected from the boreholes. To obtain a PID reading, a soil sample from each sampling interval will be placed in a sealed plastic bag, the PID probe will be inserted into the plastic bag and soil gas allowed to pass through the PID until readings stabilize. The resulting concentration reading will be recorded in the geologist's field log.

The sample tubes will be capped with Teflon® and fitted with plastic end caps. Each tube will be marked and placed in a cooler on water ice at a temperature of 4 degrees Celsius (checked using a thermometer) pending transportation to Accutest Laboratories under chain of custody. Accutest Laboratories is NELAP Accredited by the California Department of Public Health, Environmental Laboratory Accreditation Branch, Certificate #08258CA.

Soil samples will be collected continuously from each boring using a continuous 4-foot core sampler. Soil from each sampled interval will be screened for volatile organic compounds in the field with a portable photoionization detector (PID). A geologist will record PID readings, soil types (according to the Unified Soil Classification System), and other pertinent geologic data on borehole. Continuous core soil samples will be collected to identify subsurface lithology, potential staining and other sign of contamination at each of borehole location. In addition to visually classifying the soils, the geologist will carefully examine the core for such features as root-holes, fractures, mineralization, and thin micro-bedding.

The soil sample collected at the soil-groundwater limit (capillary fringe) will be submitted for analyses.

Drilling will continue to approximately 15 feet. ALFA will collect grab groundwater samples through a temporary PVC well screen. The temporary well will not be developed. The grab groundwater samples will be collected using a dedicated/disposable bailer and decanted into appropriate and clean glassware preserved with hydrochloric acid (HCl) and to 1-liter amber glass supplied by the analytical laboratory. Groundwater sample containers will be labeled to indicate a unique sample number, sample location, time and date collected, and sampler's



identification. Groundwater samples will be preserved in chilled cooler at a maximum temperature of 4 degrees Celsius during transport to the DHS-certified laboratory under chain-of-custody protocol.

Proposed soil/groundwater sampling location is identified on Figure 1. Soil samples collected will be identified on the boring logs. The supervising geologist will select soil samples for chemical analysis based upon the sample interval with the highest PID response and other conditions observed in the field at the time of drilling such as drilling refusal.

After completion of sampling activities, the boring will be backfilled to surface grade with neat cement grout composed of one sack of Portland Type I/II cement (94 lbs.) to approximately five gallons of potable water provided by the driller. Drilling and sampling equipment will be steam cleaned or thoroughly scrubbed withalconox solution followed by a distilled water rinse prior to being brought on site and between samplings.

All drilling activities, sampling, and report will be supervised and/or prepared by a California-Registered Professional Geologist (#7503) and in accordance with procedures referenced within a Health and Safety Plan (signed in the field).

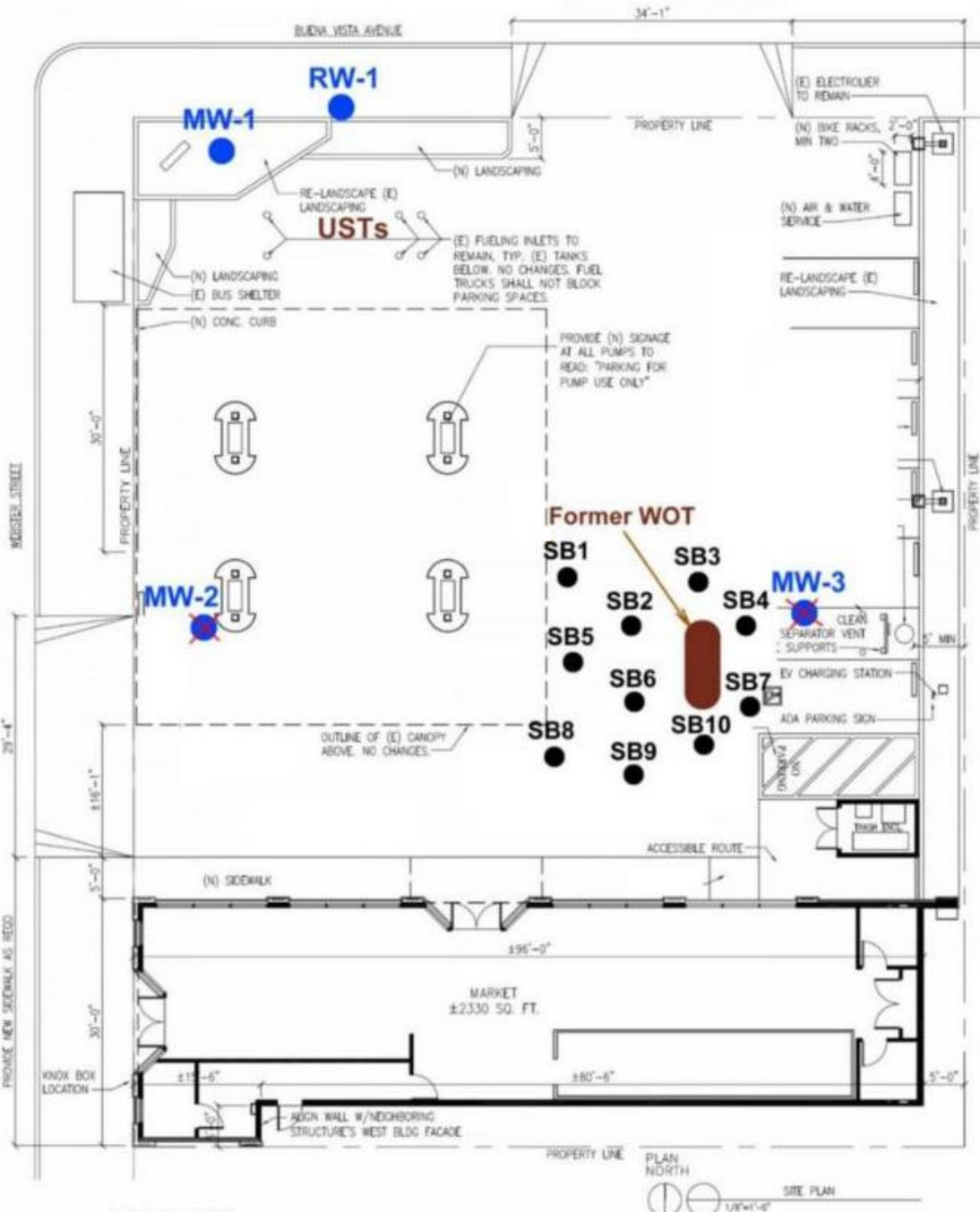
ALFA will employ the services of a State of California Certified Laboratory who uses the procedures of the EPA-approved Test Methods. Soil samples and grab groundwater sample will be analyzed for TPHg, TPHd, TPH-Hydraulic Oil, O&G, BTEX, and MTBE using EPA Methods - with Silica Gel cleanup.

REPORTING

All drilling activities, sampling, and reports will be supervised and/or prepared by a California-Registered Professional Geologist and in accordance with procedures referenced within a Health and Safety Plan (signed in the field). Following completion of the field work, a Subsurface Investigation Report will be prepared and submitted presenting the field activities, copy of the drilling permit, boring log, laboratory analytical results of the soil and grab groundwater samples collected, conclusions, and recommendations.



FIGURES



LEGEND

MW-1 Existing Groundwater Monitoring Well
 Location and Designation

MW-3 Damaged Groundwater Monitoring Well
 Location and Designation

SB2 Proposed Soil Boring
 Location and Designation

Proposed Soil Borings - Location Map



ALFA Environmental
 Remediation Services, Inc.

Station #11104
 1716 Webster Street
 Alameda, California

Project Number: #14018



Base Map: Daniel Hoy AIA Architecture

Date: July 29, 2014

Wellhead Photographs











Soil Transport and Disposal Documents

MUSCO EXCAVATORS, INC.

2526 GREENVALE COURT
SANTA ROSA, CA 95401
(707) 579-0250 • FAX (707) 575-7389
CONTRACTOR LIC. #634117

Invoice

DATE	INVOICE NO.
1/13/2014	3133

BILL TO
Iron Horse Development P.O. Box 7022 Folsom, CA 95673

TERMS	DUE DATE	PROJECT	Job Number
Due on receipt	1/13/2014	1716 Webster Street, Alameda	M0814

DESCRIPTION	QTY/HOUR(S)	RATE	AMOUNT
DenBeste Transportation, Inc. from Friday, December 13, 2013 - Off haul and disposal of soil to Altamont Landfill in Livermore, CA. 15% mark-up.		7,221.20	7,221.20
		15.00%	1,083.18

Please pay from this invoice. The original will not follow - THANK YOU

Total \$8,304.38



To: Musco Excavators
2526 Greenvale Court
Santa Rosa, CA 95401

Invoice Number 045495
Invoice Date January 07, 2014
PO/Profile No.: 615659CA
Alameda to Altamont
Alameda, CA
Project No.: MUSCALACA1365201

Tag Number	Date	Units	Rate	Total
707782	12/13/2013			
		Tonnage	43.10	\$40.00
				1,724.00
Manifest Numbers: ST151-12-13-13				
Weight Tickets: 1023879,1023922				
Tag Total:				\$1,724.00

Tag Number	Date	Units	Rate	Total
797634	12/13/2013			
		Tonnage	48.98	\$40.00
				1,959.20
Manifest Numbers: 121313-1,121313-2				
Weight Tickets: 1023865,1023905				
Tag Total:				\$1,959.20

Tag Number	Date	Units	Rate	Total
836851	12/13/2013			
		Tonnage	47.89	\$40.00
				1,915.60
Weight Tickets: 1023869,1023918				
Tag Total:				\$1,915.60

Tag Number	Date	Units	Rate	Total
836950	12/13/2013			
		Tonnage	40.56	\$40.00
				1,622.40
Weight Tickets: 1023875,1023921				
Tag Total:				\$1,622.40

Totals:	Qty	Amount	Invoice Total:	\$7,221.20
Tonnage	180.53	7,221.20		