

September 7, 2005

Ms. Lorena Goerger New Mexico Environment Department Petroleum Storage Tank Bureau 2044 Galisteo Santa Fe, NM 87504 **INTERA Inc.**

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Re: Emergency Response Site Assessment Report - Former Conoco Mini-Mart located on Highway 84, Chama, New Mexico

Ms. Goerger:

This Emergency Response Site Assessment report documents the procedures and presents the results of the emergency response activities performed on behalf of the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) by INTERA Incorporated (INTERA) at the former Conoco Mini-Mart (Site) Facility ID No. 27498, Release ID No. 2316, located in Chama, New Mexico (Figure 1). Tasks completed in preparation of this report were done so in accordance with the INTERA approved Work Plan (ID No. 3002) approved by the PSTB on January 24, 2005.

BACKGROUND

INTERA was provided limited Site-specific information by the PSTB Project Manager, Ms. Lorena Goerger, on December 21, 2004, that indicated the current owner of the adjoining property to the south of the Site had complained of gasoline odors in her basement sometime in the 1970's. A 1989 "Environmental Evaluation" performed by Sergent, Hauskins & Beckwith included the drilling of four exploratory soil borings and the sampling of ground water collected from three of the four soil borings. Depths to ground water at the soil boring locations ranged from 9 to 13 feet below ground surface (bgs). One soil boring did not encounter ground water. Three ground water samples were collected from three soil borings and submitted for laboratory analysis; two of the ground water samples were grab samples from two soil borings and one ground water sample was obtained from a temporary well screen. All soil borings were grouted after soil and ground water sampling activities were completed. Elevated concentrations of volatile organic compounds (VOCs) were detected in soils with a photoionization detector (PID) in each of the four soil borings. The ground water samples were submitted to an analytical laboratory for analysis. Benzene, toluene, ethyl benzene, and xylenes (BTEX) concentrations in the ground water samples ranged from 71 to 17.500 micrograms per liter (µg/l). Methyl-tertiary-butyl-ether (MTBE) was also identified in ground water, while ethylene dibromide (EDB) and 1,2-dichloroethane (EDC) were not. A petroleum hydrocarbon sheen was also noted on purged ground water at two of the ground water sampling



locations. Ground water flow was estimated by Sergent, Hauskins & Beckwith to be in a south-southeasterly direction based upon their research.

PSTB file information further indicated that in 1991, a notice of violation was sent to Diamond J. Oil Company (the presumed Site owner at the time) for the existence of several unregistered underground storage tanks (USTs) at the facility, and no response was received. Site conditions remained the same according to 1993 and 1994 PSTB Site inspection records (PSTB 1994). The 1994 inspection record indicated the existence of two abandoned USTS, one filled with water and one with several inches of petroleum product. Pumps and dispensers had apparently been removed. Further enforcement attempts were made by PSTB against presumed owners and/or operators of the Site in 1996 and 1997, no response to PSTB's letters was reported.

PSTB also described the existence of other PSTB sites in the vicinity Site, including one that is approximately ¼ mile northeast and possibly upgradient of the Site, known as the Sundial leaking underground storage tank (LUST) site. The former Texaco LUST site is located approximately ¼ mile to the south of the Site.

Other than the preliminary Site investigations conducted by Sergent, Hauskins & Beckwith in 1989 no other attempt to characterize the petroleum hydrocarbon contamination at the Site have been completed. The results of the evaluation by Sergent, Hauskins & Beckwith revealed that there was environmental contamination at the Site but the extent of contamination was not fully delineated.

The NMED PSTB contracted with INTERA to perform soil boring and monitoring well installation at the Site in an attempt to determine the extent of contamination at the Site and to determine location of the USTs requiring removal. The emergency response Site assessment activities and analyses that are summarized in this letter report were conducted in accordance with INTERA approved Work Plan and the terms of the New Mexico Environment Department Petroleum Storage Tank Bureau (PSTB) emergency response contract (04 667 5000 0017). The objective of this emergency response was to attempt to characterize the lateral and vertical extent of the petroleum hydrocarbon contamination in soil at the Site and to install eight groundwater monitoring wells to characterize any dissolved-phase contamination in the local ground water that may be affecting adjacent properties.

INTERA was initially tasked with assisting PSTB in securing access for the Site from the current Site owners, Scott Kenyon and Dianna Lynn Leonard. INTERA made several attempt to contact the Site owners for access to the Site via telephone calls as well as sending written access agreements in the mail to the last known addresses of the Leonard's and the former Site owner, the Diamond J Oil Company (a.k.a. Mymern Investment Corporation). In addition, INTERA contacted Mr. Dennis Wells, Town Manager for the Town of Chama. Mr. Wells spoke with the



Mayor of Chama on behalf of INTERA and the PSTB. Access was granted by the Town of Chama, Mayor Archie J. Vigil to the PSTB on June 6, 2005.

SCOPE OF WORK

PSTB directed INTERA to investigate the nature and extent of contamination as a first stage of work to aid in the planning of a "dig and haul" combination soil removal and UST removal action. The technical approach and procedures described below are in accordance with the INTERA approved Work Plan (ID No. 3002) dated January 24, 2005, which is included in Attachment A. The results of the soil boring stage of the Emergency Response Site Assessment are summarized in this section.

Geology and Hydrology

The town of Chama is located within the floodplain of the Rio Chama. Geologic units in and around the town of Chama are Cretaceous in age with exception of the floodplain deposits located along the Rio Chama. The Mesaverde group is sandstone interbedded with small strata of shale and coal. The sandstone is characterized as a near-shore deposit of the former Cretaceous coast. The Mesaverde group is underlain by the Mancos Formation. The Mancos formation is a soft, dark gray, marine shale deposited in a deep sea setting (Chronic, 1987).

The town of Chama currently relies on surface water for domestic use. The town does not currently use ground water due to elevated arsenic concentrations. However, in rural settings shallow wells in a small alluvial aquifer do most likely exist (Community by Design, 2004).

The lithologic units encountered during installation of the borings described below are dominated by fluvial deposits, ranging from clays and sand to river cobbles and boulders. Large river cobbles and boulders were encountered during the drilling operations which resulted in hollow-stem auger refusal in two of the eight soil boring locations.

The cobble/boulder deposits originated from the Rio Chama. The Rio Chama currently lies approximately 1,300 feet south and 1,500 feet to east of the Site. These deposits are typical of a braided river. Periodic flooding would cause the deposition of larger gravels and boulders while lower flow rates would deposit sands, silts, and clays (Nichols, 1999).

The direction of ground water flow in the area was assumed to be to the south-southeast towards the Rio Chama (Sergent, Hauskins & Beckwith 1989) during the initial part of this emergency response Site assessment. The potentiometric surface map derived from the monitoring wells installed during this emergency response action (MW-1, MW-2, MW-3, MW-4, and MW-5, MW-6, MW-7, and MW-8) indicated the groundwater flow direction to be to the south-southwest. Please see Figure 3. Ground water was encountered in all monitoring wells installed at the Site. Ground water levels were measured in all monitoring wells at least 24 hours



following development. Ground water level data ranged from 4.40 feet below the top of casing (TOC) in monitoring well MW-4 to 7.76 feet below TOC in monitoring well MW-8.

Field Sampling Methodology

The locations of the soil borings/wells were determined by INTERA in the field after a review of Site features, and generally were installed in a staged delineation process starting from the USTs and former dispenser island and proceeding hydraulically downgradient. An upgradient background monitoring well (SB-5/MW-4) was also installed to determine the migration of contamination on to the Site from an upgradient source (if any). The locations of the soil borings/monitoring wells are shown on Figure 2. A photographic log of the field sampling event is included as Attachment B.

INTERA subcontracted Rodgers Environmental Drilling (Rodgers) of Albuquerque New Mexico to conduct the soil boring advancement under the supervision of Mr. Blake Eldridge, INTERA field geologist. Ms Lorena Goerger observed drilling activities on July 5 and 6, 2005. Between July 5 and 8, 2005, nine soil borings were installed and soil samples were collected by driving a clean split-spoon sampler at the surface of each soil boring location and at five-foot intervals thereafter. A CME-75 drilling rig was used to advance the nine soil borings utilizing hollow stem auger drilling methods. Before drilling activities were initiated, Rodgers contacted New Mexico One Call, Inc. (One Call) to perform subsurface utility locating services.

The soil samples collected at each soil boring location were screened in the field using a PID and placed in laboratory-provided pre-cleaned containers. Two soil samples from the most contaminated boring (based on PID screening) were be analyzed for VOCs by Environmental Protection Agency (EPA) Method 8260 and for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310.

Soil borings were distributed in nine locations around the Site in an attempt to investigate the nature and extent of the soil and ground water contamination. One soil boring (SB-1) was terminated at 1.5 feet below ground surface (bgs) due to the presence of an electrical conduit present in the boring. The surface soil sample collected at SB-1 was retained as a surface sample for soil boring SB-2 (known as soil sample SB-1(1'). Soil boring SB-2 was located 1.5 feet directly west of soil boring SB-1. Two soil borings were advanced to auger refusal in the vadose zone at soil borings SB-7 and SB-8. Four soil borings (SB-1, SB-2, SB-3, and SB-6) were located near the pump islands and UST locations. Soil borings SB-4, SB-5, and SB-6 were located near the eastern perimeter of the Site in an attempt to determine if there are potential sources of petroleum hydrocarbon contamination to the east and northeast of the Site. Soil samples were collected from the surface and at every 5-foot interval in each soil boring until the ground water table was reached.



Each soil sample was retrieved using a clean split-spoon sampler. The soil samples were recovered, evaluated by their physical properties, and evaluated for the presence of hydrocarbon staining and hydrocarbon vapors (using PID heated headspace methods). PID readings are summarized in Table 1 and on the soil boring logs. Soil boring logs are included in Attachment C. Throughout the sampling event, proper decontamination procedures as outlined in the INTERA approved Work Plan were adhered to using Liquinox® soap solution and a de-ionized water rinse.

Selected soil samples were collected for laboratory analyses using methanol extraction methods and submitted to Hall Environmental Analytical Laboratory (HEAL) of Albuquerque, New Mexico for analyses. Results of the laboratory analyses are included in Attachment D.

Photoionization Heated Headspace Results

At each soil boring location, soil samples were collected and field screened for hydrocarbon vapor concentrations using a MiniRae2000® photoionization detector (PID). The PID was equipped with a 10.5 ionization potential electron volt (eV) lamp which was used to screen the soil samples for VOCs following the PSTB guidance for heated headspace screening. The 10.5 eV lamp gives the PID the sensitivity required to identify the kinds of organic compounds suspected of being present in Site soils. The PID also utilizes an in-line water trap to prevent water vapor from entering the PID. The PID screens ionizable organic compound concentrations in air and gives direct measurement readouts in parts per million (ppm). The PID determines the concentration of total ionizable organic compounds but does not differentiate between specific compounds. The operational range of the PID is 0 to 2,000 ppm, with a minimum instrument detection of 0.1 ppm. Soil samples were placed in glass jars, covered with tin foil, and placed in direct sunlight to warm to ambient air temperature. The tip of the PID probe was inserted into a small puncture in the tin foil (the puncture is made by using the tip of the PID). The organic compound concentration in the air above the soil sample (or headspace) was analyzed using the PID. The PID reading was recorded with the corresponding soil-sample depth on the soil-boring log. The PID headspace readings are provided in Table 1. The soil boring logs are included in Attachment C.

In accordance with the INTERA approved Work Plan dated January 24, 2005, INTERA collected heated headspace readings of soil samples at five foot intervals in each soil boring in order to help investigate the nature and extent of the soil contamination. Headspace screening results, measured in parts per million (ppm), are summarized in Table 1 and discussed below:

PID readings of the surface soil sample from soil boring SB-1 (SB-1(1')), located near
the northern pump island and the USTs, was elevated at 67.5 ppm with the stained
surface soil matrix collected consisting of coarse to medium sand with gravels.



- PID readings of soil from soil boring SB-2 (located near the northern pump island and the USTs) were elevated. The highest vapor concentration (4,168 ppm) at the Site was detected at soil boring SB-2 at 5 feet bgs in a soft, wet, gray clay. An additional reading of 538 ppm at soil boring SB-2 was obtained at a depth of 8 feet bgs. A hydrocarbon odor was observed while collecting soil samples at this location.
- PID readings of soil from soil boring SB-3 (located south of the suspected leaking USTs) were elevated in the subsurface. The surface soil sample was identified with a PID reading of 2.0 ppm and the subsurface soil sample collected at 5 feet was identified with PID reading of 3,315 ppm.
- PID readings of soil from soil boring SB-4 located in the northwest corner of the Site were relatively moderate. Heated headspace results were greatest in surface soils where the PID reading measured was 28.3 ppm. The subsurface soil sample recovered from 5 feet bgs in soil boring SB-4 had a PID reading of 1.7 ppm.
- PID readings of soil from soil boring SB-5, located east of the northern pump island in the northeast corner area of the Site, were observed to be relatively low. The highest PID reading was recorded from the surface soil sample at a concentration of 1.5 ppm. All other PID readings from soil samples collected from soil boring SB-5 were less than 1.5 ppm.
- PID readings of soil from soil boring SB-6 (located near the southern pump island and the canopy of the former Conoco Mini-Mart) were elevated. The PID readings were highest at 5 feet bgs interval at a measured concentration of 381 ppm. The surface soil reading was also elevated and measured at a concentration of 263 ppm.
- PID readings of soil from soil boring SB-7, located in the southeastern corner of the Site were observed to be low. The heated headspace readings of all soil samples collected from soil boring SB-7 were below 1.5 ppm.
- PID readings of soil from soil boring SB-8 (located in the asphalt area near the center of the southern boundary of the property) were elevated. PID readings in soil samples collected from 5 feet and 9 feet bgs intervals were measured at 3,480 ppm and 2,470 ppm, respectively. The PID reading from the surface sample was measured below 1.0 ppm.
- PID readings of soil from soil boring SB-9 (located near the southwest corner of the Site) were observed to be low. PID readings from the soil samples collected from soil boring SB-9 were all below 3.5 ppm.

Soil Sample Laboratory Analytical Results

INTERA submitted two subsurface soil samples to HEAL to be analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 and Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8310. The two soil samples selected for laboratory analyses were to be based on the most highly contaminated soil observed, per the INTERA approved Work Plan. Based on the



highest PID readings and soil staining observed visually during soil sample collection, INTERA submitted SB-1(1') and SB-2(5') for laboratory analysis. The soil samples submitted for laboratory analysis were preserved using a 10 cubic centimeters (cc) syringe filled with soil and placed in a 20 cc vial containing 10 cc of methanol preservative. The two soil samples submitted for laboratory analysis were placed in an ice packed cooler for preservation until delivery to the contracted laboratory.

Proper chain-of-custody procedures were adhered to during sample collection, transport, and delivery to HEAL (INTERA hand-delivered the soil sample cooler to HEAL). A summary of the analytical results from the soil samples is included in Table 2 and Table 3.

Laboratory analytical results for the soil samples are summarized as follows:

- VOCs were not reported above the practical quantitation limit (PQL) in soil sample SB-1(1'). PAH compounds pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected in soil sample SB-1(1') but did not exceed the PSTB's Tier 1 Soil Concentrations Protective of Groundwater (NMED 2000, Table 4-16) for Site soils. Please see Table 2 and Table 3.
- VOCs benzene, ethylbenzene, total xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-propylbenzene, sec-butylbenzene, and total naphthalene were detected in soil sample SB-2(5'). The concentrations identified of benzene, ethylbenzene, total xylenes, and total naphthalene exceed PSTB's Tier 1 Soil Concentrations Protective of Groundwater (NMED 2000, Table 4-16) for Site soils. Please see Table 2. PAHs phenanthrene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene were also identified in the soil sample SB-2(5') but were detected in concentrations that did not exceed the PSTB's Tier 1 Soil Concentrations Protective of Groundwater (NMED 2000, Table 4-16) for Site soils. Please see Table 3.

Monitoring Well Installation

In accordance with the INTERA approved Work Plan dated January 24, 2005, INTERA installed eight monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8) at the Site between July 5 and July 8, 2005. The soil boring/monitoring well locations are shown on Figure 2. Monitoring well construction consisted of installing polyvinyl chloride (PVC) casing and slotted screen in the completed soil boring. The PVC casing for the monitoring wells installed is 2-inch nominal diameter. The screen and casing material for the monitoring wells are schedule 40 PVC with 4-80 flush threads. The well screen was manufactured with 0.010-inch slots. Annular well construction materials consisted of 10x20 silica sand filter pack around the screen, 3/8-inch bentonite pellets for the plug, and type I/II neat cement placed from the plug to



the surface. Well construction diagrams are presented on each soil boring log included in Attachment C.

The monitoring wells were constructed with 10-foot long sections of screen placed across the air - water interface in an attempt to capture seasonal fluctuations in the level of the area water table and for the potential in identifying free-phase liquids. The filter pack was placed from the total depth of each monitoring well to approximately 1 foot above the top of screen. A 1-foot thick bentonite seal was placed and hydrated immediately above the filter pack, and cement was used to fill the remaining annular space to within 0.5 feet from the surface. All monitoring wells were constructed with surface completions consisting of an 8-inch diameter, flush-mounted, traffic-rated steel monitoring well vault set in a concrete apron. The wells were capped with sealing J-plugs and locked with padlocks. All wells were developed using surge and bail methods evacuating a minimum of 5 saturated well casing volumes.

Ground Water Sampling and Ground Water Sample Analysis

After installation and development of the monitoring wells, a baseline ground water sampling of all Site monitoring wells was completed. Ground water samples were collected from the newly-installed Site monitoring wells on July 8 and July 11, 2005.

Prior to ground water sampling, ground water levels were measured from the northern side TOC of each monitoring well using a HeronTM oil/water interface meter. Ground water level measurements suggest that there is a 2.67-foot maximum difference in the water table between the monitoring wells at the Site (see Figure 3). The ground water flow direction was determined to be to the south, southwest with a potentiometric surface gradient of approximately 0.030 feet per foot (range of 0.02 to 0.039 feet per foot). Figure 3 depicts the potentiometric surface at the Site. Measured ground water levels are summarized in Table 4. All meters were decontaminated between measurements at the monitoring wells. No non-aqueous phase liquid (NAPL) was observed in any of the Site monitoring wells during the ground water sampling.

Ground water samples were collected after each monitoring well had been either purged of three saturated casing volumes and ground water quality parameters had stabilized or until the monitoring well had been totally evacuated of ground water. Ground water quality parameters measured in the field included pH, conductivity, and temperature. The ground water quality parameters were measured with an Oakton pH/Conductivity/Temperature 300 multi-parameter meter. Each monitoring well was purged and sampled using a new disposable bailer.

All ground water samples were submitted for laboratory analyses of VOCs by EPA Method 8260. After collection, all ground water samples were placed in an ice chilled cooler. INTERA hand-delivered the ground water samples each day after sample collection (Friday, July 8 and Monday, July 11, 2005) to HEAL for analysis.



Ground water samples were collected in appropriate sample containers that had been provided by and pre-preserved by HEAL. Proper chain-of-custody procedures were adhered to during sample collection, transport, and delivery to HEAL and the documentation is included with the laboratory analytical report in Attachment D.

Analytical results from the ground water sampling activities are summarized in Table 5 and discussed in the following section. The ground water sample analytical results for the BTEX compounds and total naphthalene are shown on Figure 4. It should be noted that the total naphthalene concentration includes the sum of the analytical results for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

- The ground water sample collected from monitoring well MW-1 contains concentrations above the New Mexico Water Quality Control Commission (NMWQCC) standards of benzene and total naphthalene. Benzene was identified at a concentration of 2.1 micrograms per liter (μg/L) and total naphthalene was identified at a concentration of 81 μg/L.
- The ground water sample collected from monitoring well MW-2 contains concentrations above the NMWQCC standards of benzene and total xylenes. Benzene was identified at a concentration of 32 μg/L and total xylenes was identified at a concentration of 1,800 μg/L.
- The ground water sample collected from monitoring well MW-3 did not contain any VOC concentrations above the respective PQLs.
- The ground water sample collected from monitoring well MW-4 did not contain any VOC concentrations above the respective PQLs.
- The ground water sample collected from monitoring well MW-5 contains concentrations above the NMWQCC standards of total xylenes and total naphthalene. Total xylenes were identified at a concentration of 940 μ g/L and total naphthalene was identified at a concentration of 147 μ g/L.
- The ground water sample collected from monitoring well MW-6 did not contain any VOC concentrations above the respective PQLs.
- The ground water sample collected from monitoring well MW-7 contains concentrations above the NMWQCC standards of benzene, total xylenes and total naphthalene. Benzene was identified at a concentration of 700 μg/L, total xylenes were identified at a concentration of 1,300 μg/L, and total naphthalene was identified at a concentration of 720 μg/L.
- The ground water sample collected from monitoring well MW-8 contains concentrations above the NMWQCC standards of benzene, total xylenes and total naphthalene. Benzene was identified at a concentration of 49 μg/L, total xylenes were identified at a concentration of 1,600 μg/L, and total naphthalene was identified at a concentration of 251 μg/L.



Quality Assurance/Quality Control

In accordance with INTERA's standard operating procedures and standard industry practices as approved by the NMED PSTB, INTERA collected a duplicate ground water sample for field and laboratory QA/QC control purposes. The duplicate sample was collected from well MW-4 and given a blind sample identification of "MW-9". The results were identical between the primary and duplicate ground water sample. It should be noted that all VOC results for primary ground water sample MW-4 and duplicate ground water sample MW-9 were below the PQLs.

Site Survey

Upon completion of the drilling and well installation activities, the Site was professionally surveyed by Terrametrics of New Mexico, Inc. of Albuquerque, New Mexico. The Site survey included all pertinent surface structures and the monitoring wells. All of the Site features were located using a survey-grade geographical positioning system unit.

Conclusions and Recommendations

The PSTB directed INTERA to perform an emergency response Site assessment at the former Conoco Mini-Mart Station located in Chama, New Mexico. The emergency response Site assessment included the investigation of the nature and extent of petroleum hydrocarbon contamination to aid in the planning for a combined soil and UST removal action.

Two USTs at the Site are present in the northern portion of the property within an area immediately west of the northern pump island. Two hatches were observed which are believed to be former fill ports for the USTs. The UST area is approximately 15-feet by 60-feet and is shown on Figure 5. The PSTB has confirmed that two USTs are present at the Site. Real estate contract records show that three storage tanks were present at the Site at the time of the sale of the property from the Diamond J. Oil Company to Scott Kenyon Leonard. INTERA recommends that the two USTs be removed from the Site immediately and that if a third UST is not encountered in the UST area shown on Figure 5, that a geophysical survey be performed in an attempt to confirm the third UST's presence or absence. INTERA suspects that based on subsurface soil PID results from soil boring SB-8(5') and ground water sample results from MW-7 that a leaking UST may be present along the south side of the Site building. This location is shown as the "potential" UST area on Figure 5.

The nature and extent of hydrocarbon contamination was assessed at the Site using soil and ground water samples collected during the emergency response Site assessment conducted from July 5 – July 8 and July 11, 2005. Nineteen (19) soil samples were collected and screened using a PID. Two of the soil samples (SB-1(1') and SB-2(5')) were submitted for laboratory analysis. Analytical results for SB-2(5') indicated that subsurface soils located immediately south of the USTs contain benzene, ethylbenzene, total xylenes, and total naphthalene above their respective



PSTB Tier 1 Soil Concentrations Protective of Groundwater (NMED 2000, Table 4-16) for Site soils (NMED, 2000). The soil sample results indicate that soils are present at the Site which will continue to be a source of ground water contamination after the USTs are removed. Based on the soil sample results, INTERA recommends a limited, over excavation of soil be performed after the removal of the USTs. This soil excavation will most likely be limited due to the presence of a significant amount of cobbles located in the subsurface at the Site. INTERA recommends screening the excavated soils with a PID until observed heated headspace concentrations of the excavated soils are below 100 ppm. Confirmation soil samples should be collected after excavation activities at the base of the excavation and the confirmation soil samples analyzed for VOCs to determine if VOC concentrations in the soil remaining at the Site are still above the PSTB Tier 1 soil concentrations protective of ground water. Based on confirmation soil sample results, soils remaining in place at the base and side walls of the excavation after excavation activities are completed may need to be treated in some manner to promote biodegradation of the remaining petroleum hydrocarbons. The excavation should then be backfilled with clean soil.

Eight ground water monitoring wells were installed at the Site and ground water samples were collected from each monitoring well (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8). Ground water was measured at an approximate depth of 5.98 feet bgs at each monitoring well location. The ground water flow direction was measured to the south, southwest at an average gradient of approximately 0.030 feet per foot (range of 0.020 to 0.039 feet per foot). A hydrocarbon odor was detected in ground water samples collected from monitoring wells MW-1, MW-2, MW-5, MW-7, and MW-8. No free product was measured in any of the monitoring wells. Laboratory analytical results indicate that benzene concentrations are present above the NMWOCC standard at monitoring wells MW-1, MW-2, MW-7, and MW-8. Total xylenes concentrations were observed above its respective NMWOCC standard at monitoring wells MW-2, MW-5, MW-7, and MW-8. Total naphthalene (which includes the sum of the analytical results for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene) is present above its respective NMWOCC standard at monitoring wells MW-1, MW-2, MW-5, MW-7, and MW-8. Because ground water concentrations are present in monitoring wells above NMWQCC standards at downgradient monitoring wells MW-7 and MW-8, INTERA recommends that a monitoring well or monitoring wells be place off Site to the south in an attempt to delineate the extent of petroleum hydrocarbon contamination in ground water in accordance with 20.5.12.1211.B NMAC (NMED, 2003).

INTERA recommends that quarterly ground water monitoring be initiated immediately following the removal of the USTs from the Site. INTERA also recommends reviewing the file for the Sundial LUST site to determine if the ground water concentrations of BTEX and total naphthalene present at MW-5 are the result of trespass contamination or perhaps the result of leaking product lines present at the southern pump island.



INTERA recommends that the local area receptor studies (completed for the Sundial and Texaco area LUST sites) be updated to include potential receptors to the south of the Site. Based on the analytical results of the ground water samples collected from MW-7 and MW-8, it appears petroleum-hydrocarbon contamination has migrated off Site. INTERA recommends at a minimum that if a well is present on the adjacent property to the south of the Site, it be sampled and analyzed for VOCs.

Based on the ground water sample results of samples collected from monitoring wells MW-7 and MW-8 and subsurface soil sample SB-8(5'), it appears petroleum-hydrocarbon contamination has migrated off Site. Vapor samples should be collected from the basement of the buildings to the south and southwest of the Site and analyzed for VOCs.

References

Chronic, H., 1987. Roadside Geology, Mountain Press Publishing Company.

Community by Design, Southwest Planning and Marketing, 2004. Village of Chama Comprehensive Plan, adopted December 22, 2004, Chama, New Mexico.

New Mexico Environment Department, Underground Storage Tank Bureau, 2000. *Guidelines for Corrective Action* (20.5.12 NMAC), New Mexico Petroleum Storage Tank Bureau, Santa Fe, New Mexico, March 13, 2000.

New Mexico Environment Department, Petroleum Storage Tank Bureau, 2003. New Mexico Petroleum Storage Tank Regulations, New Mexico Administrative Code Title 20, Chapter 5, Santa Fe, New Mexico, August 13, 2003.

New Mexico Environment Department, Underground Storage Tank Bureau, 1994. *Inspection Report*, Conoco Mini-Mart, Diamond J Oil Company, Chama, New Mexico, July 15, 1994.

New Mexico Water Quality Control Commission (NMWQCC), 1996. New Mexico Water Quality Control Commission Regulations (20.6.2 NMAC), New Mexico Water Quality Control Commission Regulations, Santa Fe, New Mexico, November 15, 1996.

Nichols, G, 1999. Sedimentology and Stratigraphy, Blackwell Science Limited, 1999.

Real Estate Contract between Mymern Investment Corporation d.b.a. Diamond J. Oil Company and Scott and Dianna Leonard dated December 18, 1986.

Sergent, Hauskins & Beckwith (SHB), 1989. *Environmental Evaluation*, Conoco Station, Highway 64, Chama, New Mexico, October 20, 1989.



Thank you for the opportunity to work with the New Mexico PSTB. If you have any questions, comments, or recommendations regarding this report, please contact either of the undersigned at (505) 246-1600.

Sincerely,

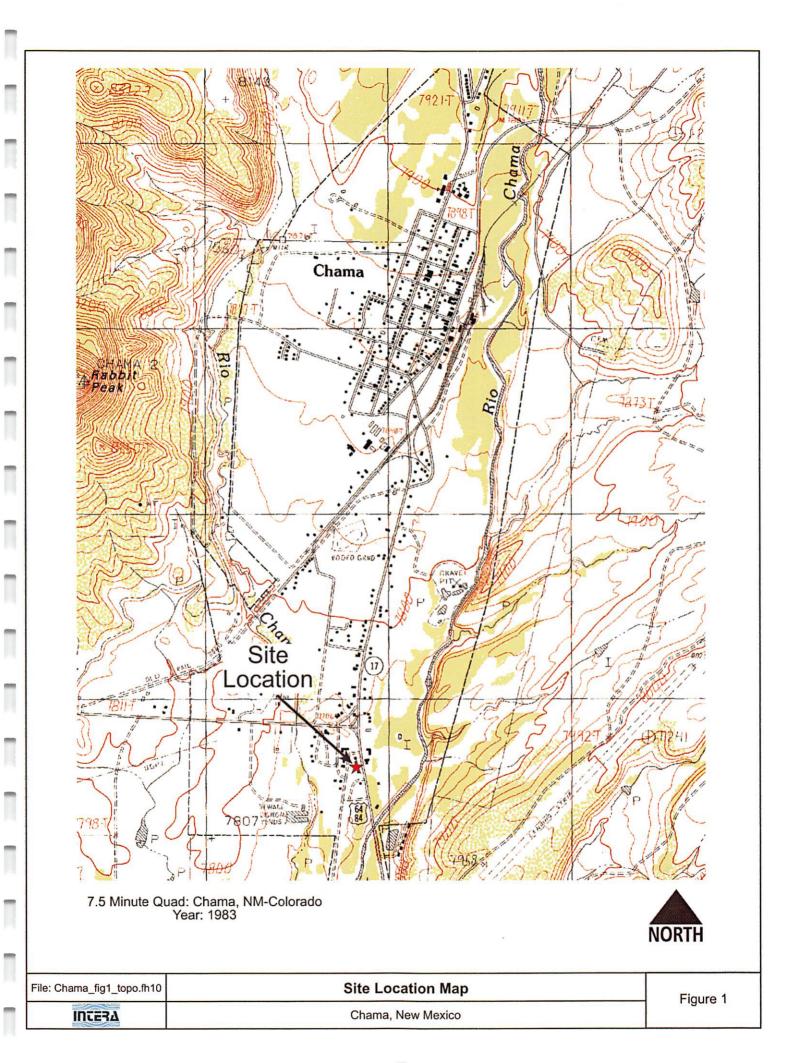
INTERA Inc.

Joseph J. Tracy. Project Geologist Cynthia Ardito Vice President

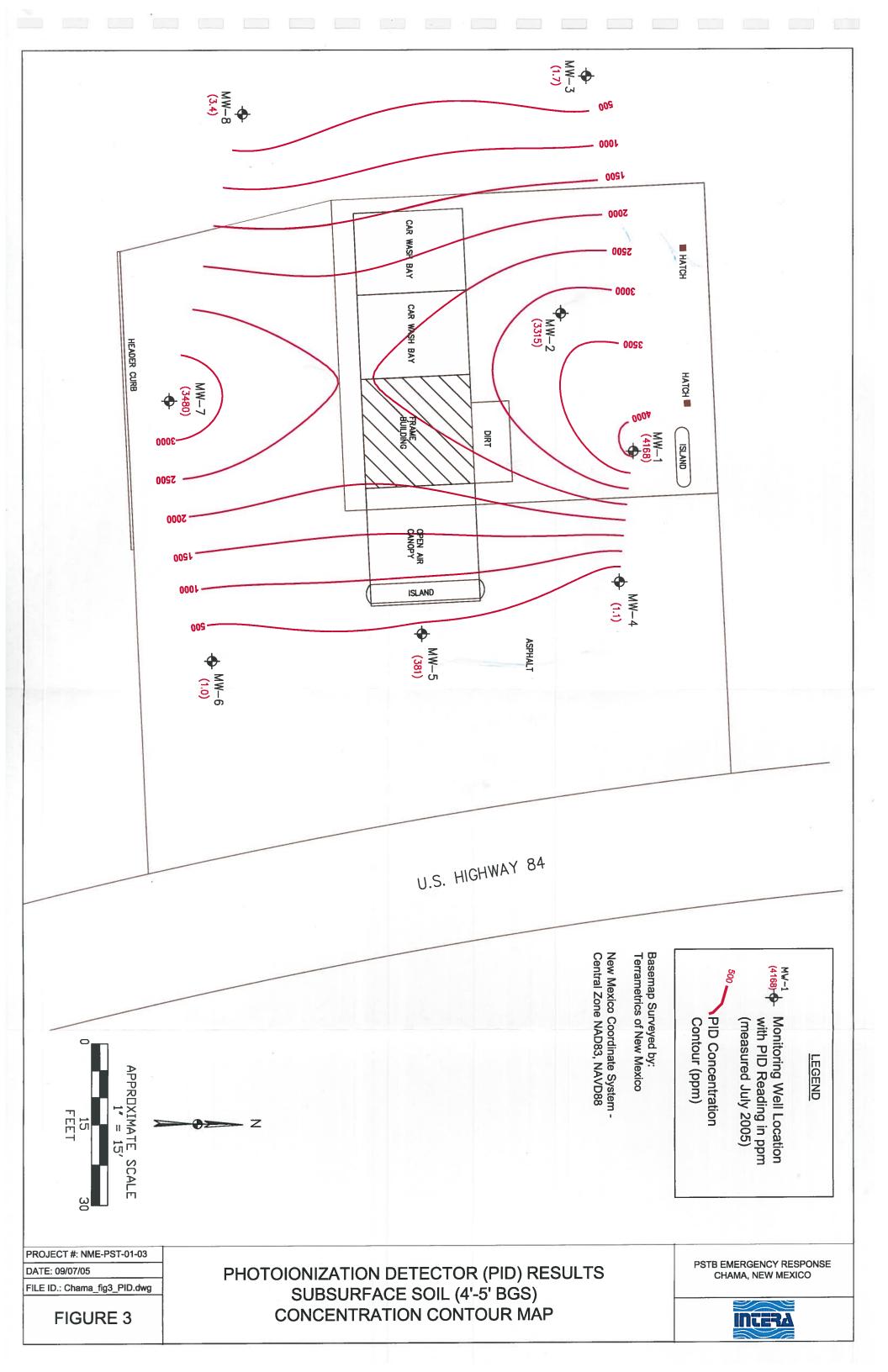
Attachments:

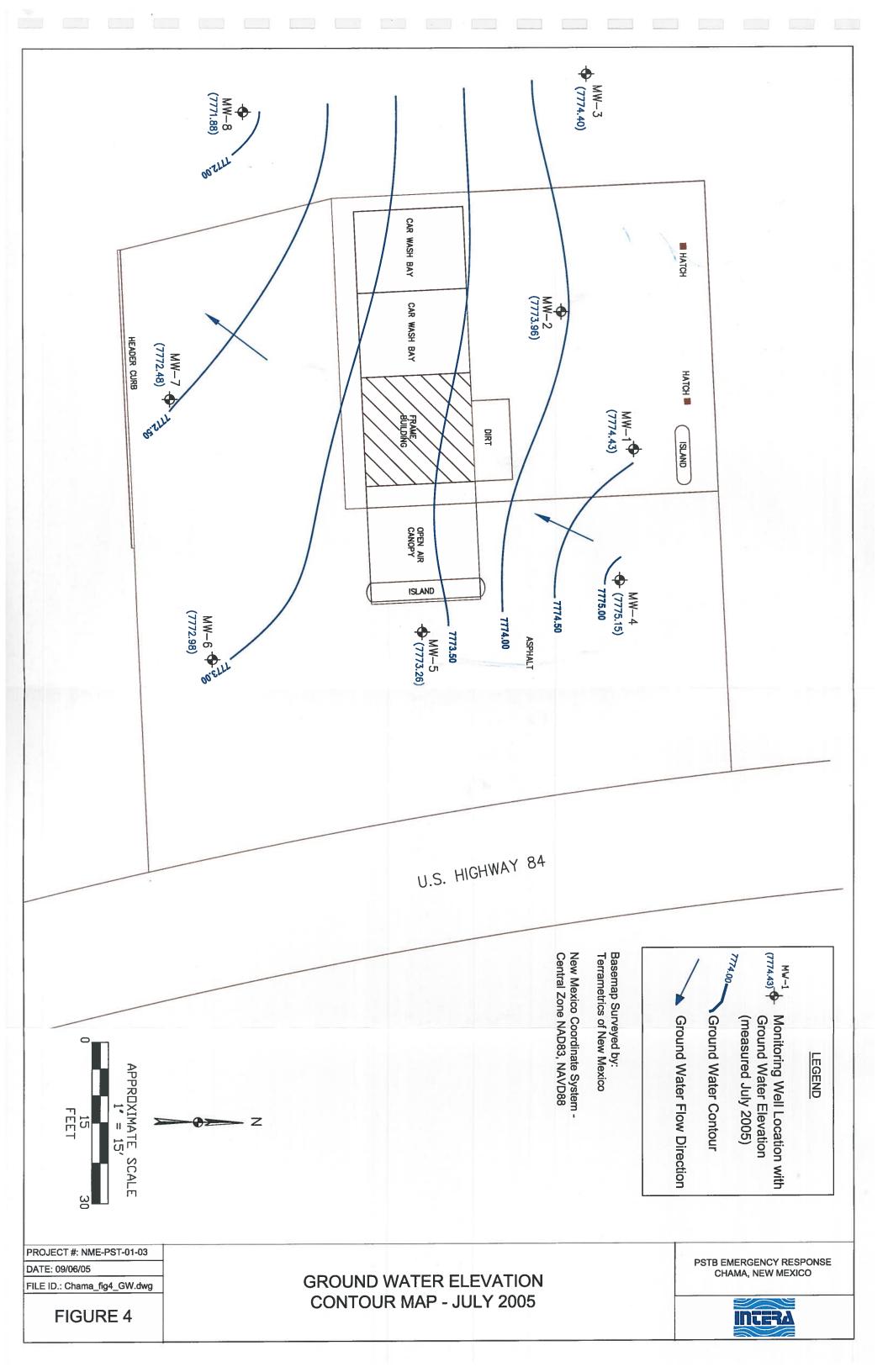
Figure 1	Site Location Map
Figure 2	Site Map
Figure 3	Photoionization Detector results Subsurface Soil (4'-5' bgs) Concentration
	Contour Map
Figure 4	Ground Water Elevation Contour Map, July 2005
Figure 5	Ground Water Contamination Map, July 2005
Figure 6	Underground Storage Tank Locations and Soil Removal Area
Table 1	Results of Soil Sample Heated Headspace PID Readings
Table 2	Laboratory Results of Soil Sample Analysis - VOCs
Table 3	Laboratory Results of Soil Sample Analysis - PAHs
Table 4	Water Level Measurements
Table 5	Laboratory Results for Ground Water Sample Analysis - VOCs
Attachment A	INTERA Approved Work Plan
Attachment B	Photographic Log
Attachment C	Soil Boring Logs/Monitoring Well Construction Diagrams
Attachment D	Laboratory Analytical Report

FIGURES









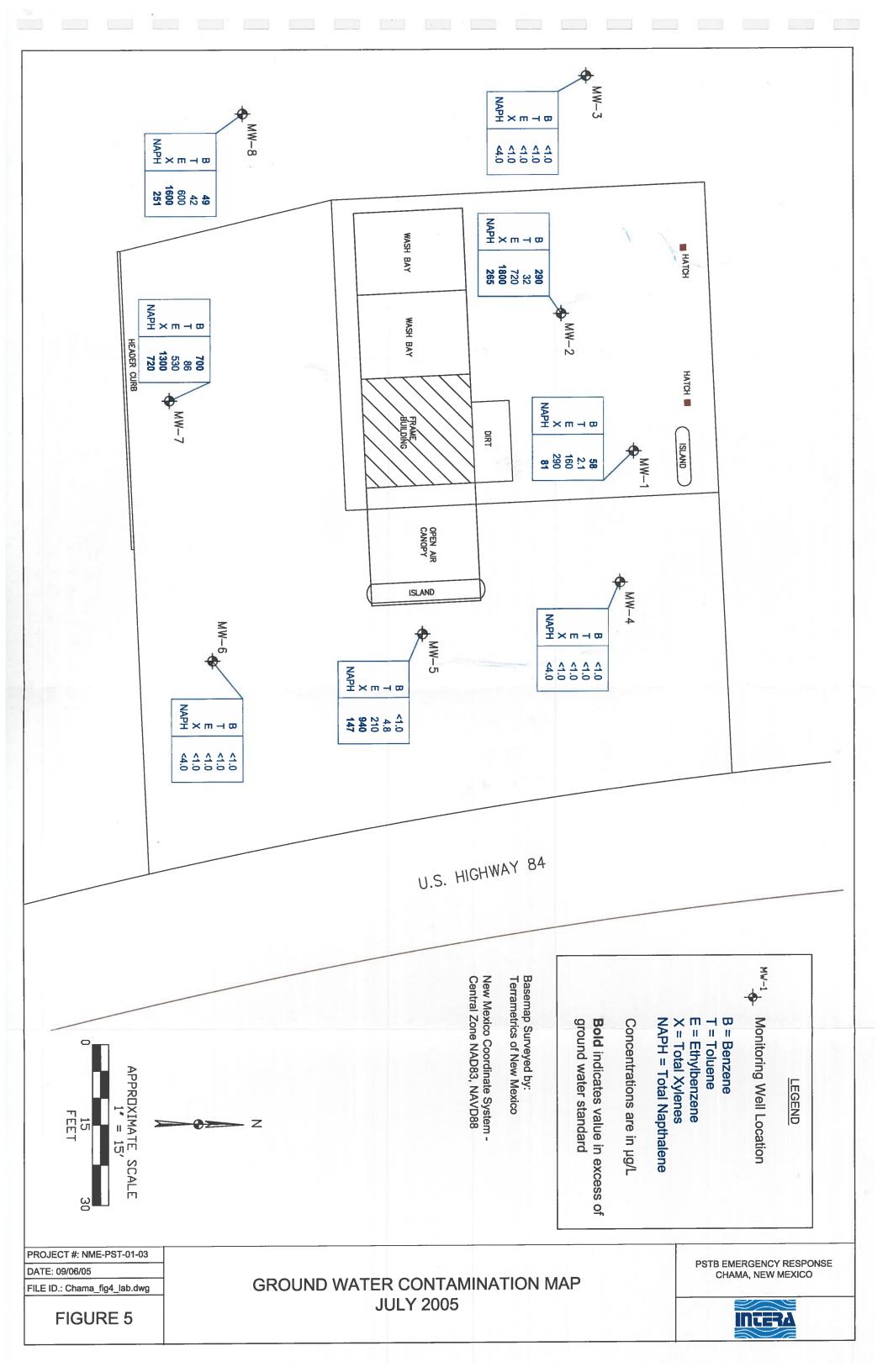






TABLE 1 RESULTS OF SOIL SAMPLE HEATED HEADSPACE PID READINGS EMERGENCY RESPONSE SITE ASSESSMENT

Conoco Mini-Mart, Chama, New Mexico

Borehole Identification	Depth (feet bgs)	Screening Date	PID Reading (ppm)
SB-1	1	7/5/05	67.5
SB-2/MW-1	5	7/5/05	4168.0
3B-2/WW-1	8	7/5/05	538.0
	1	7/5/05	2
SB-3/MW-2	5	7/5/05	3315
	9	7/5/05	No Recovery
SB-4/MW-3	1	7/6/05	28.3
3B-4/WW-3	5	7/6/05	1.7
SB-5/MW-4	1	7/6/05	1.5
3B-3/WW-4	5	7/6/05	1.1
SB-6/MW-5	1	7/6/05	263.0
36-0/10100-3	5	7/7/05	381
SB-7/MW-6	1	7/7/05	1.4
3B-7/WW-0	4	7/7/05	1
	1	7/7/05	0.5
SB-8/MW-7	5	7/7/05	3480
	9	7/7/05	2470
SB-9/MW-8	0.5	7/7/05	2.1
3D-9/MW-8	4	7/8/05	3.4

bgs = below ground surface

PID = Photoionization Detector

ppm = parts per million

Bold indicates samples submitted for laboratory analyses

NS = No sample recovered

Table 1 Page 1

TABLE 2 LABORATORY RESULTS OF SOIL SAMPLE ANALYSIS - VOCS EMERGENCY RESPONSE SITE ASSESSMENT

Conoco Mini-Mart, Chama, New Mexico

			EPA Method 8260 VOCs (mg/kg)													
Soil Boring ID	Collection Date	Sample Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	МТВЕ	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	EDC	EDB	4-Isopropyltoluene	-Butylbenzene	n-Propylbenzene	sec-Bulylbenzene	Total Naphthalene¹
SB-1	07/05/05	1'	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.20
SB-2	07/05/05	5'	1.1	<1.0	26	130	<1.0	76	25	<1.0	<1.0	<1.0	<1.0	15	1.5	24.8
Soil Concentra Wa	ations Protection ater (Table 4-16		0.02	2.09	17.23	2.91	0.04	NA	NA	0.01	0.0001	NA	NA	NA	NA	0.68

Notes:

VOCs = Volatile Organic Compounds

1 - Total naphthalene includes the sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

EPA = United States Environmental Protection Agency

mg/kg = milligrams per kilogram

MTBE = methyl tert-butyl ether

EDB = 1,2-Dibromomethane

EDC = 1,2-Dichloroethane

Bolding indicates detected concentrations above soil concentration standards determined to be protective of ground water, Guidelines for Corrective Action, March 2000.

NA = No Tier 1 soil concentration screening level protective of ground water has been established

TABLE 3 LABORATORY RESULTS OF SOIL SAMPLE ANALYSIS - PAHS EMERGENCY RESPONSE SITE ASSESSMENT

Conoco Mini-Mart, Chama, New Mexico

				EPA Method 8310 PAH (mg/kg)														
Soil Boring ID	Collection Date	Sample Depth	Total Naphthalene¹	Acenaphthylene	Acenaphthene	Flourene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene	Indeno(1,2,3-cd)pyrene
SB-1	07/05/05	1'	<0.50	<0.50	<0.50	<0.30	<0.060	<0.060	<0.060	0.063	0.058	0.058	0.08	0.04	0.07	0.028	<0.020	0.093
SB-2	07/05/05	5'	4.45	<0.25	<0.25	<0.15	0.094	<0.030	0.065	0.14	0.031	0.028	0.026	0.014	0.064	0.01	0.01	<0.013
	rations Protections ater (Table 4-16		24.8	NA	187.95	196.12	270.07	4499.81	1247.59	1301.71	7.48	810.27	25.68	25.68	4.74	3.74	NA	NA

Notes:

1 - Total naphthalene includes the sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

EPA = United States Environmental Protection Agency

PAH = polynuclear aromatic hydrocarbon

mg/kg = milligrams per kilogram

Bolding indicates detected concentrations above soil concentration standards determined to be protective of ground water, Guidelines for Corrective Action, March 2000.

NA = No Tier 1 soil concentration screening level protective of ground water has been established

TABLE 4 WATER LEVEL MEASUREMENTS EMERGENCY RESPONSE SITE ASSESSMENT

Conoco Mini-Mart, Chama, New Mexico

WELL ID	GAUGING DATE	WELLHEAD ELEVATION (FEET)	TOTAL DEPTH (FEET)	DEPTH TO GROUND WATER (FEET BELOW TOC)	GROUND WATER ELEVATION (FEET)
MW-1	7/8/2005	7780.17	15.00	5.74	7774.43
MW-2	7/8/2005	7779.97	15.00	6.01	7773.96
MW-3	7/8/2005	7780.16	15.50	5.76	7774.40
MW-4	7/8/2005	7779.55	15.50	4.40	7775.15
MW-5	7/8/2005	7779.02	15.00	5.76	7773.26
MW-6	7/11/2005	7778.61	12.00	5.63	7772.98
MW-7	7/11/2005	7779.32	12.50	6.84	7772.48
MW-8	7/11/2005	7779.64	15.00	7.76	7771.88

Notes: Elevations are given in feet above mean sea level

TOC = Top of Casing

TABLE 5 LABORATORY RESULTS FOR GROUND WATER SAMPLE ANALYSIS - VOCS EMERGENCY RESPONSE SITE ASSESSMENT

Conoco Mini-Mart, Chama, New Mexico

				EPA N	Method 82	60 VOCs	(µg/L)		
Monitoring Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	ЕБС	EDB	Total Naphthalene ¹
MW-1	7/8/2005	58	2.1	160	290	<1.0	<1.0	<1.0	81
					19				
MW-2	7/8/2005	290	32	720	1800	<5.0	<5.0	<5.0	265
MW-2 MW-3	7/8/2005 7/8/2005	290 <1.0	32 <1.0	720 <1.0	1800 <1.0	<5.0 <1.0	<5.0 <1.0	<5.0 <1.0	265 <4.0
100000000000000000000000000000000000000									
MW-3	7/8/2005	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
MW-3 MW-4	7/8/2005 7/8/2005	<1.0 <1.0	<1.0 <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<4.0 <4.0
MW-3 MW-4 MW-5	7/8/2005 7/8/2005 7/8/2005	<1.0 <1.0 <1.0	<1.0 <1.0 4.8	<1.0 <1.0 210	<1.0 <1.0 940	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<4.0 <4.0 147
MW-3 MW-4 MW-5 MW-6	7/8/2005 7/8/2005 7/8/2005 7/11/2005	<1.0 <1.0 <1.0 <1.0	<1.0 <1.0 4.8 <1.0	<1.0 <1.0 210 <1.0	<1.0 <1.0 940 <1.0	<1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0	<4.0 <4.0 147 <4.0

Notes:

1 - Total naphthalene includes the sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

EPA = United States Environmental Protection Agency

VOCs = Volatile Organic Compounds

μg/L = micrograms per liter

MTBE = methyl tert-butyl ether

EDB = 1,2-Dibromomethane

EDC = 1,2-Dichloroethane

NM-GS - Ground water Standards as defined by the State of New Mexico Water Quality Control Commission.

Bolding indicates values in excess of the ground water standards.

ATTACHMENT A INTERA APPROVED WORK PLAN



INTERA Inc.

One Park Square 6501 Americas Parkway NE Suite 820 Albuquerque, NM 87110

Telephone: 505 246 1600 Fax: 505 246 2600

January 11, 2005

Ms. Lorena Goerger New Mexico Environment Department Petroleum Storage Tank Bureau 2044 Galisteo Santa Fe, NM 87504

Re: Emergency Response Project at former Conoco Mini-Mart on Highway 84, Chama, New Mexico

Ms. Goerger:

In accordance with terms of the New Mexico Environment Department Petroleum Storage Tank Bureau (PSTB) emergency response contract (04 667 5000 0017), INTERA Incorporated (INTERA) is submitting this work plan and attached cost estimate for your review and approval. The fixed price cost estimate includes INTERA's labor, expenses and subcontractor services for investigation of the facility listed above.

BACKGROUND

INTERA was provided some site-specific information by PSTB on December 21, 2004 that indicated that the resident of the southerly abutting property had complained of gasoline odors in her basement in the 1970's. A 1989 "Environmental Evaluation" performed by Sergent, Hauskins & Beckwith included the drilling of four exploratory borings and the sampling of ground water from three of the four borings. Depths to ground water ranged from 9 to 13 feet below ground surface (bgs). One boring did not encounter ground water. Three ground water samples were obtained and submitted for laboratory analysis; two of the ground water samples were grab samples from the borehole, and one was obtained from temporary well screen. All borings were grouted after sampling activities were completed. Elevated total volatile organic compounds (VOCs) were detected in soils with a photionization detector (PID) in each of the four borings. Total benzene, toluene, ethyl benzene, and xylenes (BTEX) concentrations in the ground water samples ranged from 71 to 17,500 µg/l. Methyl-tert-butyl-ether (MTBE) was detected in ground water, while ethylene dibromide (EDB) and 1,2-dichloroethane (EDC) were not. A petroleum sheen was also noted on purged ground water at two of the sampling locations. Ground water flow was estimated to be in a south-southeasterly direction based upon local research.



PSTB file information further indicated that in 1991, a notice of violation was sent to Diamond J. Oil Company (the presumed site owner at the time) for the existence of several unregistered underground storage tanks (USTs) at the facility, and that no response was received. Site conditions remained the same according to 1993 and 1994 PSTB site inspection records. The 1994 inspection record indicated the existence of two abandoned USTS, one filled with water and one with several inches of product contained within. Pumps and dispensers had apparently been removed. Further enforcement attempts were made by PSTB against presumed owners and/or operators in 1996 and 1997; apparently, no response to PSTB's letters was received.

PSTB also described the existence of other PSTB sites in the vicinity, including one that is northeast and possibly upgradient of the former Conoco site.

SCOPE OF WORK

PSTB has directed INTERA to investigate the nature and extent of contamination as a first stage of work to aid in the planning for a "dig and haul" combined soil removal and UST removal action. This scope of work has been categorized into three separate tasks. Task 1 shall work plan preparation, and an attempt to gain access for site investigation activities. Task 2 shall include field activities associated with the drilling and installation of monitoring wells and the collection and analysis of soil and ground water samples. Task 3 shall include the preparation and transmittal of a letter report documenting the results of the field activities.

TASK 1 – Work Plan Development and Site Access

INTERA met with PSTB in Santa Fe on December 21, 2004 to review site-specific file information and to discuss the project with PSTB staff. Information obtained from that meeting, as well as information obtained from drilling subcontractors, was used to prepare this work plan.

As part of this task, INTERA will attempt to obtain access to the site for subsequent site investigation and remediation activities. INTERA's effort will be limited to the drafting of a single letter for PSTB's use to each of the potential owners operators indicated by the file information provided to INTERA. As discussed, it is anticipated that PSTB will issue the access request letter on its letterhead.

TASK 2 - Drilling, Well Installation, Surveying, Sampling

Based on conversations with PSTB and a review of the file information provided, INTERA proposes the installation of eight shallow monitoring wells in order to investigate the nature and extent of contamination attributable to the on-site USTs, former dispenser island, and possibly to upgradient off-site sources. The locations of the wells shall be determined in the field after a review of site features, and generally shall be installed in a staged delineation process starting from the USTs and former dispenser island and proceeding down gradient. An upgradient background well shall also be installed. The proposed boring locations will be cleared for utilities by notifying New Mexico One Call and post-hole digging the first 3 to 5 feet (as practical). Based upon our assumption that the



depth to water remains at approximately 13 feet bgs, the wells will be installed to a total depth of approximately 22 feet.

Hollow stem auger drilling will be used to advance the borings. Soil samples shall be obtained by driving a split spoon sampler at the surface and at five-foot intervals thereafter. The soil samples shall be classified in the field and screened for total VOCs with a PID following PSTB guidelines. Two soil samples from the most contaminated boring (based on PID screening) shall be analyzed for VOCs using U.S. Environmental Protection Agency (EPA) method 8260 and for polynuclear aromatic hydrocarbons (PAHs) using EPA method 8310.

The wells will be installed with 10 feet of 2-inch diameter (nominal) schedule 40 PVC screen, with 0.010-inch slots. The bottom of the well will be fitted with a two-foot PVC sediment collection sump prior to installation. Schedule 40 PVC casing shall be installed from the top of the screen interval to the ground surface. The well will be completed to grade with an 8-inch-diameter, flush-mounted, traffic-rated well vault. The filter pack shall be 10/20 silica sand. A bentonite seal and bentonite/neat cement grout shall be placed in the annular space of the well above the filter pack and hole plug.

Upon completion, each monitoring well will be developed by surging and bailing the well until water quality parameters (pH, conductivity, and temperature) stabilize or until the well has been completely evacuated and recharge is slower than a foot of elevation gain of water in the well casing per minute. A minimum of five saturated well casing volumes will be removed from the well, if possible, based upon the rate of recharge.

Investigation derived waste (IDW) (e.g., soil cuttings and purge water) shall be drummed, labeled in accordance with PSTB guidelines, and left on site for future disposal. IDW disposal is anticipated to be coordinated with the envisioned future soil excavation and tank removal activities.

After the monitoring wells have been installed, the wells will be located by a professional surveyor. Top of casing elevations will be surveyed within a tolerance of 0.01 feet. A datum will be established on each well casing to which subsequent water levels can be measured. Other site features, such as property boundaries and utilities as marked, shall also be included in the survey.

After a period of at least one day of stabilization after development, INTERA will measure the depth to ground water and product (if applicable) in each of the monitoring wells. INTERA will sample all monitoring wells to establish a "baseline" round of ground water quality parameters. Samples shall be analyzed for VOCs using EPA method 8260. INTERA shall also collect a quality assurance/quality control (QA/QC) sample (duplicate) from one of the sampled wells and submit it for laboratory analyses for VOCs.

Departures from these assumptions will require a work plan amendment approved by the PSTB that changes the scope and cost.



TASK 3 - Report Preparation

Upon completion of the Task 2 drilling and sampling activities, INTERA will prepare a letter report for the PSTB summarizing the results of the field activities. As part of the letter report, INTERA will describe the nature and extent of contamination as indicated by the Task 2 results, and recommend a combined soil and UST removal action. Figures depicting the direction of ground water flow and the proposed extent of soil excavation and tank removals shall be included. Once PSTB concurs with the recommendations, INTERA will prepare a work plan for these activities as part of a separate approval from PSTB.

Costs and Invoicing

Attached is a fixed price cost estimate (spreadsheet) that provides costs for labor, expenses, and subcontracted services described in Tasks 1 through 3 and the associated assumptions. The grand total, including New Mexico Gross Receipts Tax (6.75%), for the scope of work detailed above is \$36,379.33, which shall not be exceeded without written authorization from the PSTB. INTERA shall recover costs by submitting an invoice upon the completion of each of the aforementioned tasks.

If you have any questions or recommendations, please contact either of the undersigned at (505) 246-1600.

Sincerely,

INTERA Inc.

James Joseph, P.E. Project Engineer Stacy Sabol Sector Manager

WORK PLAN COST ESTIMATE EMERGENCY RESPONSE ACTIVITIES FORMER CONOCO MINIMART/ HIGHWAY 84 CHAMA, NEW MEXICO

TASK 1: WORK PLAN DEVELOPMENTAND SITE ACCESS		· · · · · · · · · · · · · · · · · · ·
INTERA LABOR	\$	3,360.00
EXPENSES	\$	0.00
SUBCONTRACTED SERVICES	\$	0.00
	<u>`</u>	
TOTAL: TASK 1	\$	3,360.00
TASK 2:DRILLING, WELL INSTALLATION, SURVEYING, SAMPLING		
INTERA LABOR	\$	10,048.00
EXPENSES	\$	1,555.00
SUBCONTRACTED SERVICES	\$	14,975.00
TOTAL: TASK 2	\$	26,578.00
TASK 3: REPORT PREPARATION	·	
INTERA LABOR	\$	4,141.00
EXPENSES	\$	0.00
SUBCONTRACTED SERVICES	\$	0.00
TOTAL: TASK 3	\$	4,141.00
TOTAL: ALL TASKS	\$	34,079.00
NMGRTX (6.75%)	\$	2,300.33
GRAND TOTAL: ALL TASKS	\$	36,379.33

ATTACHMENT B PHOTOGRAPHIC LOG



No. 1 - View looking south at MW-1 (circled) prior to completion. Note abandoned pump island in the foreground and existing petroleum tank vault (arrow).

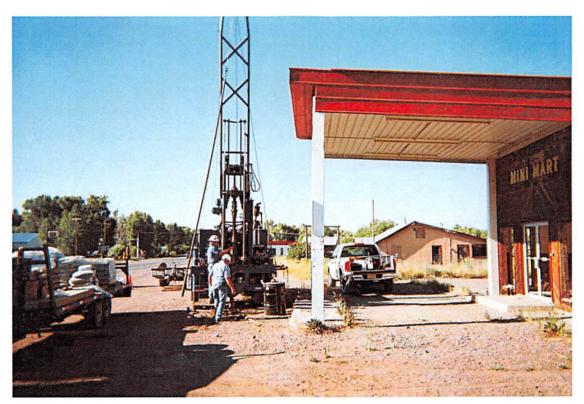


No. 2 – View looking west at MW-2 (circled) prior to completion.





No. 3 – View looking southeast during drilling of soil boring SB-5/MW-4.



No. 4 – *View looking southeast during the drilling of soil boring SB-6/MW-5.*





No. 5 – View looking west during the drilling of soil boring SB-7/MW-6.



No. 6 – *View looking east during the drilling of soil boring SB-8/MW-7.*





No. 7 – View looking west during the drilling of soil boring SB-9/MW-8.



ATTACHMENT C SOIL BORING LOGS



LOG OF BORING SB-1

(Page 1 of 1)

Project Name:

Date Started

: 7/5/05 12:15

Driller

: B. Hitchcock

Chama Conoco

Date Completed **Drilling Method**

: 7/5/05 12:30 : 8" HSA

Depth to Water Logged By

: NA : B. Eldridge

Project #: NME-PST-01-03

Sampling Method

: Split-spoon

	Proje	:Cl #:	INIVIE-P	51-01-03	Drilling Company : Rodgers Environmental Drilling
Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION SOR DESCRIPTION
0-					Concrete
1-	1'	NA	67.5	NA	SAND, medium to coarse grained, well graded, staining at 4.5' bgs, tan, damp, some gravels (rounded to subrounded), hydrocarbon odor
2-					Total Depth = 1.5' bgs
3-					
4-					

5-

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.
- 5. NA = Not Applicable



LOG OF BORING SB-2 / MW-1

(Page 1 of 1)

Project Name:

Date Started

: 7/5/05 12:35 : 7/5/05 15:19

Driller Depth to Water

Logged By

: B. Hitchcock : 7.52' bgs : B. Eldridge

Chama Conoco

Project #: NME-PST-01-03

Date Completed **Drilling Method**

: 8" HSA

: Split-spoon

Sampling Method **Drilling Company** : Rodgers Environmental Drilling

Well:

Rec/Pen (ft) **Blow Count** PID (ppm) Depth Sample in Feet

GRAPHIC USCS **DESCRIPTION**

0 Concrete 2. 3. 5' 80 4168 2:3:3:3 CLA, Ygray, soft, slightly plastic, uniform, heterogeneous, some gravels (rounded), hydrocarbon odor, some fines, wet 6 GC CLA, Ysame as previous, water at 7.52' bgs, some red staining, 0.5 538 50 8very hard (rocks and cobbles), not enough recovery for lab sample 9. 10 11 12

Grout Bentonite 2" DIA PVC Casing Sand Pack 0.010" Screen

Total Depth = 15' bgs

20

O:\BoreLogs\Chama Conoco\SB-2_MW-1.bor

13

14

15

16

17

18

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon



LOG OF BORING SB-3 / MW-2

(Page 1 of 1)

Project Name:

Date Started

: 7/5/05 15:24

Driller

: B. Hitchcock

Chama Conoco

Date Completed Drilling Method

: 7/5/05 16:30 : 8" HSA

CLAY, gray, soft, slightly plastic, uniform, heterogeous, hydrocarbon odor, w/ sand (medium to coarse grained), some gravels (angular to

No Recovery, very hard (probably large gravels), water in augers at

Depth to Water Logged By

: 7.61' bgs : B. Eldridge

Sampling Method NME-PST-01-03 Project #:

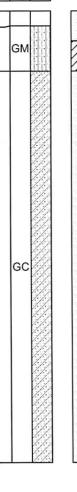
: Split-spoon

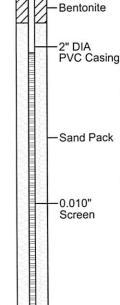
Drilling Company : Rodgers Environmental Drilling

Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC	VVE
0-		r						_
					Concrete			- 13
1-	1'	NA	2.0	NA	SAND, fine to coarse grained, some gravels (subrounded to subangular), well graded, brown, damp, little fines	GМ		

subrounded), damp, some fines

7.5' bgs, readings based on cuttings





Grout

15 Total Depth = 15' bgs 16

20

O:\BoreLogs\Chama Conoco\SB-3_MW-2.bor

5'

6

8

9-

10

11

12

13

14.

17

18

19

100

0

3794*

3315 5;11;22;26

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.
- 5. NA = Not Applicable
- 6. (*) Based on cuttings.



LOG OF BORING SB-4 / MW-3

(Page 1 of 1)

Project Name:

Date Started

: 7/6/05 08:21

Driller

: B. Hitchcock

Chama Conoco

Date Completed

: 7/6/05 09:20

Depth to Water Logged By

: 7.1' bgs : B. Eldridge

Project #: NME-PST-01-03

9-

10-

11

12

13.

14

15-

16

17-

18-

19

Drilling Method Sampling Method : 8" HSA : Split-spoon

Drilling Company

: Rodgers Environmental Drilling

	1		We
		O	We
	1	∓	
	ALCOHOL:		

Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC
0- - 1-	1'	NA	28.3	NA	Concrete SAND, fine to medium fine grained, some gravels (rounded), well graded, brown to dark brown, dry, some silts, trace roots	GM	
2	5'	50	1.7	25;11;4;3	CLAY, gray, soft, slightly plastic, uniform, heterogeneous, w/ gravels (rounded), damp, some fines (3'-4.8'), red brick? (based on visual and high blow counts	O.W.	

Water in augers at ~8' bgs, very hard drilling, lots of boulders/cobbles GC

Bentonite ·2" DIA PVC Casing Sand Pack 0.010" Screen

Grout

Total Depth = 15.5' bgs

20

09-07-2005 O:\BoreLogs\Chama Conoco\SB-4_MW-3.bor

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.
- 5. NA = Not Applicable



LOG OF BORING SB-5 / MW-4

(Page 1 of 1)

Project Name: Chama Conoco Date Started

: 7/6/05 10:14

Driller

: B. Hitchcock

Date Completed : 7/6/05 13:56 **Drilling Method** : 8" HSA

Depth to Water Logged By

: 4.23' bgs : B. Eldridge

Project #: NME-PST-01-03

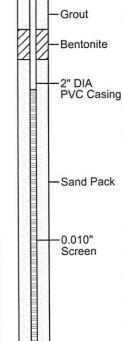
Depth

Sampling Method : Split-spoon

Drilling Company : Rodgers Environmental Drilling

		ပ္	Well:
SCRIPTION	SSCS	SAPHI	

Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC
0					Asphalt		
1- -	1'	75	1.5	12;7;12;20	CAND for the residence are included to	GМ	
2-							
3- -							
4-							
5— 5	5'	30	1.1	12;50	SAND, same as previous, w/ cobbles		
6-							
7—							
8-							
9-		0		50	No Recovery, lots of cobbles/boulders	GC	
10 <i>-</i>							
11—							
12 <i>-</i>							
13-							
- 14 <i>-</i>							
_							



Total Depth = 15.5' bgs

20-

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15-

16-

17

18

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.
- 5. NA = Not Applicable



LOG OF BORING SB-6 / MW-5

(Page 1 of 1)

Project Name:

Date Started

: 7/6/05 16:53

Driller

: B. Hitchcock

Chama Conoco

Date Completed **Drilling Method**

: 7/7/05 : 8" HSA Depth to Water Logged By

: 5.76' bgs : B. Eldridge

Project #: NME-PST-01-03

Sampling Method : Split-spoon

Drilling Company

: Rodgers Environmental Drilling

Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC
0					Asphalt		
1- 2-	1'	75	263	16;17;7;6	SAND, fine to medium grained, w/ gravels (rounded to subrounded), well graded, some fines, black to dark brown, damp, hydrocarbon odor		
3-							
4-							
5-	5'	25	381	10;50	SAND, same as previous, increasing large gravels %, wet, some red staining		
6-							
7-						O.M.	
8-						GM	
9-							
10 —							
11 <i>-</i>							
12 <i>-</i>							
13-							
14 <i>-</i> -							
15- - 16-		I			Total Depth = 15' bgs		LITERE

Well:

Bentonite ·2" DIA PVC Casing Sand Pack

Grout

0.010" Screen

Total Depth = 15' bgs

20-

17-

18-

19

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- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.



LOG OF BORING SB-7 / MW-6

(Page 1 of 1)

Project Name:

Date Started

: 7/7/05 08:40

Driller

: B. Hitchcock

Chama Conoco

Date Completed Drilling Method

: 7/7/05 11:00 : 8" HSA

Depth to Water Logged By

: 5.63' bgs : B. Eldridge

Sampling Method

: Split-spoon

		Proje	ect #:	NME-F	PST-01-03	Drilling Company : Rodgers Environmental Drilling				
	epth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	USCS	GRAPHIC	Well:	
	0-		1			Asphalt		16.		Grout
	1- 2-	1'	90	1.4	10;10;19;23	CLAY, brown-light brown, medium stiff, slightly plastic, heterogeneous, w/ large gravels (subrounded), some sand (fine to medium grained), damp	GM	1		—Bentonite —2" DIA PVC Casing
	3-									PVC Casing
	4- 5-	4'	25	1.0	13;50	SAND, fine to medium grained, w/ large gravels (rounded to subrounded), well graded, some fines, dark brown, damp, some red staining boulders/cobbles at 5' bgs				—Sand Pack
	6-					bounds a construction of the construction of t				
	7-						GM	1		0.010"
	8-									Screen
	9-									
	10-									2) 3) 6)
	11—									
	12 -									
	13-					Total Depth = 12' bgs Refusal				
	14-									
	15 <i>-</i>]								
noco\SB-7_MW-6.bor	- 16-	1								
SB-7_N	17 <i>-</i>									
1000	-	1								

20-

18-

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.



LOG OF BORING SB-8 / MW-7

(Page 1 of 1)

Project Name:

Date Started

: 7/7/05 11:34

Driller

: B. Hitchcock

Chama Conoco

Date Completed Drilling Method

Drilling Company

: 7/7/05 14:10 : 8" HSA

Depth to Water Logged By

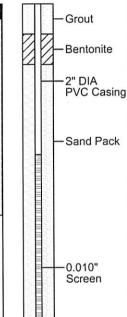
: NA : B. Eldridge

Project #: NME-PST-01-03 Sampling Method

: Split-spoon

: Rodgers Environmental Drilling

	Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC	Well:
b	0-					Asphalt	Γ		
	1- 2-	1'	10	0.5	6;9;11;50	CLAY, brown-dark brown, medium stiff, slightly plastic, heterogeneous, w/ gravels (subrounded to rounded), some sand (fine to medium grained), damp			
	3-								
	4-						GM		100000
	5— 5—	5'	90	3480	6;9;15;17	CLAY, brown gray, staining at 4.5' bgs, uniform, heterogeneous, some sand (fine to medium grained), trace gravels, some fines, damp, strong hydrocarbon odor			
	- 7-								
	- 8-							er Deste er Deste er Joseph	
	9- 10-	9'	7	2470	12;50	SAND, fine to coarse grained, well graded, w/ some gravels (subangular to subrounded), gray staining, few fines, wet Large cobbles at 9'-12.5'	sw		
	11-							-101	
	12-								
	13-		•		•	Total Depth = 12.5' bgs			
	2000	1				Pofusel			



Refusal

20-

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14-

15

16-

17-

18-

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.



LOG OF BORING SB-9 / MW-8

(Page 1 of 1)

Project Name:

Date Started

: 7/7/05 15:27 : 7/8/05 11:09 Driller

: B. Hitchcock

Chama Conoco

Date Completed Drilling Method

: 8" HSA

Depth to Water Logged By

: 7.76' bgs : B. Eldridge

Grout

Bentonite

2" DIA **PVC Casing**

Sand Pack

0.010"

Screen

GC

Project #: NME-PST-01-03

8

9-

10

11

12

13.

14

15

16

17

18-

19

10'

0

NA

50

Sampling Method : Split-spoon

Drilling Company : Rodgers Environmental Drilling

			Well:
		2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
PIDTION	۵ا	표	

Depth in Feet	Sample #	Rec/Pen (ft)	PID (ppm)	Blow Count	DESCRIPTION	nscs	GRAPHIC
0-						_	\equiv
1-	0.5'	2	2.1	50	SAND, fine to medium grained, w/ gravel (rounded to subrounded), trace roots, dry, well graded, few fines	sw	
2-						1	77
-							
3-							
4-	4'	5	3.4	10;50	CLAY, brown-dark brown, nonplastic, very hard, heterogeneous, gravels (rounded to subrounded), sand (medium to coarse grained), few fines, trace cement, some red staining, dry, some cobbles and		

ew fines, trace cement, some red staining, dry, some cobbles and

Boulders and cobbles starting at 8' bgs

Total Depth = 15' bgs

20

- 1. Color code is from Munsell Soil Color Charts 2000 ed.
- 2. PID reading represents total VOCs using a 10.6eV lamp by placing soil half full in a glass jar and sealing the opening with foil. The jar was heated for 15 minutes. The PID wand punctured the foil and the highest level was recorded.
- 3. Blow counts per 6" drive with drop hammer unless otherwise noted.
- 4. Samples collected using brass sleeves in split spoon.
- 5. NA = Not Applicable

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ATTACHMENT D LABORATORY ANALYTICAL REPORT



COVER LETTER

July 26, 2005

Joseph Tracy Intera, Inc.

6501 Americas Parkway, NE Ste 820

Albuquerque, NM 87110 TEL: (505) 246-1600

FAX (505) 246-2600

RE: Chama Conoco

Order No.: 0507078

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 4 samples on 7/11/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager



CLIENT: Intera, Inc.

Lab Order: 0507078

ra, Inc. Client Sample ID: MW-7

7078 Collection Date: 7/11/2005 12:44:00 PM

Project: Chama Conoco

Lab ID: 0507078-01 Matrix: AQUEOUS

Analyses	Result	PQL	Qual L	Inits	DF	Date Analyzed
EPA METHOD 8260: VOLATILES						Analyst: BD
Benzene	700	10	μ	g/L	10	7/13/2005
Toluene	86	10	μ	g/L	10	7/13/2005
Ethylbenzene	530	10	μ	g/L	10	7/13/2005
Methyl tert-butyl ether (MTBE)	DN	10	μ	g/L	10	7/13/2005
1,2,4-Trimethylbenzene	710	10	μ	g/L	10	7/13/2005
1,3,5-Trimethylbenzene	310	10	μ	g/L	10	7/13/2005
1,2-Dichloroethane (EDC)	ND	10	μ	g/L	10	7/13/2005
1,2-Dibromoethane (EDB)	ND	10	μ	g/L	10	7/13/2005
Naphthalene	370	20	μ	g/L	10	7/13/2005
1-Methylnaphthalene	110	40	þ	g/L	10	7/13/2005
2-Methylnaphthalene	240	40	μ	g/L	10	7/13/2005
Acetone	ND	100	μ	g/L	10	7/13/2005
Bromobenzene	ND	10	μ	g/L	10	7/13/2005
Bromochloromethane	ND	10	μ	g/L	10	7/13/2005
Bromodichloromethane	ND	10	μ	g/L	10	7/13/2005
Bromeform	ND	10	-	g/L	10	7/13/2005
Bromomethane	ND	20	μ	g/L	10	7/13/2005
2-Butanone	ND	100	μ	g/L	10	7/13/2005
Carbon disulfide	ND	100	μ	g/L	10	7/13/2005
Carbon Tetrachloride	ND	10	μ	g/L	10	7/13/2005
Chlorobenzene	ND	10	μ	g/L	10	7/13/2005
Chloroethane	ND	20	μ	g/L	10	7/13/2005
Chloroform	ND	10	μ	g/L	10	7/13/2005
Chloromethane	ND	10	-	g/L	10	7/13/2005
2-Chlorotoluene	ND	10	-	g/L	10	7/13/2005
4-Chlorololuene	ND	10		g/L	10	7/13/2005
cis-1,2-DCE	ND	10		g/L	10	7/13/2005
cis-1,3-Dichloropropene	ND	10		g/L	10	7/13/2005
1,2-Dibromo-3-chloropropane	ND	20		g/L	10	7/13/2005
Dibromochloromethane	ND	10	-	g/L	10	7/13/2005
Dibromomethane	ND	20	-	g/L	10	7/13/2005
1,2-Dichlorobenzene	ND	10		g/L	10	7/13/2005
1,3-Dichlorobenzene	ND	10		g/L	10	7/13/2005
1,4-Dichlorobenzene	ND	10		g/L	10	7/13/2005
Dichlorodifluoromethane	ND	10		g/L	10	7/13/2005
1,1-Dichloroethane	ND	10		g/L	10	7/13/2005
1,1-Dichloroethene	ND	10		g/L	10	7/13/2005
1,2-Dichloropropane	ND	10		g/L	10	7/13/2005
1,3-Dichicropropane	ND	10		g/L	10	7/13/2005
2,2-Dichloropropane	ND	10		g/L	10	7/13/2005
1,1-Dichloropropene	ND	10		g/L	10	7/13/2005

Qualifiers:

Date: 26-Jul-05

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 26-Jul-05

Collection Date: 7/11/2005 12:44:00 PM

CLIENT:

Intera, Inc.

Lab Order:

0507078

Client Sample ID: MW-7

Project:

Chama Conoco

Lab ID:

0507078-01

Matrix: AQUEOUS

Analyses	Result	PQL (ual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	10	µg/L	10	7/13/2005
2-Hexanone	ND	100	μg/L	10	7/13/2005
Isopropyibenzene	47	10	µg/L	10	7/13/2005
4-Isopropyltoluene	24	10	μg/L	10	7/13/2005
4-Methyl-2-pentanone	ND	100	μg/L	10	7/13/2005
Methylene Chloride	ND	30	μg/L	10	7/13/2005
n-Butylbenzene	ND	10	μg/L	10	7/13/2005
n-Propyibenzene	91	10	μg/L	10	7/13/2005
sec-Butylbenzene	28	10	μg/L	10	7/13/2005
Styrene	ND	10	μg/L	10	7/13/2005
tert-Butylbenzene	ND	10	μg/L	10	7/13/2005
1,1,1,2-Tetrachloroethane	ND	10	μg/L	10	7/13/2005
1,1,2,2-Tetrachloroethane	ND	10	μg/L	10	7/13/2005
Tetrachloroethene (PCE)	ND	10	μg/L	10	7/13/2005
trans-1,2-DCE	ND	10	μg/L	10	7/13/2005
trans-1,3-Dichloropropena	ND	10	µg/L	10	7/13/2005
1,2,3-Trichlorobenzene	ND	10	μg/L	10	7/13/2005
1,2,4-Trichlorobenzene	ND	10	μg/L	10	7/13/2005
1,1,1-Trichloroethane	ND	10	μg/L	10	7/13/2005
1,1,2-Trichloroethane	ND	10	μg/L	10	7/13/2005
Trichloroethene (TCE)	ND	10	μg/L	10	7/13/2005
Trichlorofluoromethane	ND	10	μg/L	10	7/13/2005
1,2,3-Trichloropropane	ND	20	μg/L	10	7/13/2005
Vinyl chloride	ND	10	μg/L	10	7/13/2005
Xylenes, Total	1300	10	μg/L	10	7/13/2005
Surr: 1,2-Dichloroethane-d4	97.3	80-120	%REC	10	7/13/2005
Surr: 4-Bromofluorobenzene	98.7	80-120	%REC	10	7/13/2005
Surr: Dibromofluoromethane	101	80-120	%REC	10	7/13/2005
Surr: Toluene-d8	93.5	80-120	%REC	10	7/13/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: MW-6

Lab Order:

0507078

Collection Date: 7/11/2005 12:54:00 PM

Date: 26-Jul-05

Project:

Chama Conoco

Lab ID:

0507078-02

Matrix: AQUEOUS

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
PA METHOD 8260: VOLATILES		<u></u>			Analyst: BDI
Benzene	ND	1.0	µg/L	1	7/13/2005
Toluene	ND	1.0	µg/L	1"	7/13/2005
Ethylbenzene	ND	1.0	h8/F	1	7/13/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/13/2005
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	7/13/2005
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	7/13/2005
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	7/13/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/13/2005
Naphthalene	ND	2.0	μg/L	1	7/13/2005
1-Methylnaphthalene	ND	4.0	μg/L	1	7/13/2005
2-Methylnaphthalene	ND	4.0	μg/L	1	7/13/2005
Acelone	ND	10	μg/L	1	7/13/2005
Bromobenzene	ПN	1.0	μg/L	1	7/13/2005
Bromochloromethane	ND	1.0	μg/L	1	7/13/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/13/2005
Bramoform	ND	1.0	µg/L	1	7/13/2005
Bromomethane	ND	2.0	μg/L	1	7/13/2005
2-Bulanone	ND	10	μg/L	1	7/13/2005
Carbon disulfide	ND	10	μg/L	1	7/13/2005
Carbon Tetrachloride	ND	1.0	μg/L	1	7/13/2005
Chlorobenzene	ND	1.0	µg/L	1	7/13/2005
Chloroethane	ND	2.0	μg/L	1	7/13/2005
Chloroform	ND	1.0	μg/L	1	7/13/2005
Chloromelhane	ND	1.0	μg/L	1	7/13/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/13/2005
4-Chlorotoluene	ND	1.0	μg/L	1	7/13/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/13/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/13/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/13/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/13/2005
Dibromomethane	ND	2.0	μg/L	1	7/13/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/13/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/13/2005
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/13/2005
Dichlorodifluoromethane	ND	1.0	μg/L	1	7/13/2005
1,1-Dichloroethane	ND	1.0	μg/L	1	7/13/2005
1,1-Dichloroethene	ND	1.0	μg/L	1	7/13/2005
1,2-Dichloropropane	ND	1.0	μg/L	1	7/13/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/13/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/13/2005
1,1-Dichloropropene	ND	1.0	μg/L	1	7/13/2005

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 26-Jul-05

CLIENT:

Intera, Inc.

Lab Order:

0507078

Client Sample ID: MW-6

Project:

Chama Conoco

Collection Date: 7/11/2005 12:54:00 PM

Lab ID:

0507078-02

Matrix: AQUEOUS

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	μg/L	1	7/13/2005
2-Hexanone	ND	10	μg/L	1	7/13/2005
Isopropyibenzene	ND	1.0	µg/L	1	7/13/2005
4-Isopropylloluene	ND	1.0	μg/L	1	7/13/2005
4-Methyl-2-pentanone	ND	10	μg/L	1	7/13/2005
Melhylene Chloride	ND	3.0	µg/L	1	7/13/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/13/2005
n-Propylbenzene	ND	1.0	μg/L	1	7/13/2005
sec-Butylbenzene	1.3	1.0	μg/L	1	7/13/2005
Styrene	ND	1.0	μg/L	1	7/13/2005
tert-Butylbenzene	ND	1.0	μg/L	1	7/13/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/13/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μ g/ L	1	7/13/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/13/2005
trans-1,2-DCE	ND	1.0	μg/L	1	7/13/2005
trans-1,3-Dichloropropene	ND	1.0	μ g/ L	1	7/13/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/13/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/13/2005
1,1,1-Trichloroethane	ND	1.0	μg/L	1	7/13/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/13/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/13/2005
Trichlorofluoromethane	ND	1.0	µg/L	1	7/13/2005
1,2,3-Trichloropropane	ND	2.0	μg/L	1	7/13/2005
Vinyi chloride	ND	1.0	μg/L	1	7/13/2005
Xylenes, Total	ND	1.0	μg/L	1	7/13/2005
Surr: 1,2-Dichloroethane-d4	96.3	80-120	%REC	1	7/13/2005
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	7/13/2005
Surr: Dibromofluoromethane	89.2	80-120	%REC	1	7/13/2005
Surr: Toluene-d8	104	80-120	%REC	1	7/13/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: MW-8

Lab Order:

0507078

Collection Date: 7/11/2005 1:03:00 PM

Date: 26-Jul-05

Project:

Chama Conoco

Lab ID:

0507078-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units `	DF	Date Analyzed
EPA METHOD 8260: VOLATILES						Analyst: BDI
Benzene	49	10	ı	µg/L	10	7/14/2005
Toluene	42	10	1	µg/L	10	7/14/2005
Ethylbenzene	600	10	1	µg/L	10	7/14/2005
Methyl tert-butyl ether (MTBE)	ND	10	1	µg/L	10	7/14/2005
1,2,4-Trimethylbenzene	660	10	1	µg/L	10	7/14/2005
1,3,5-Trimelhylbenzene	260	10	1	µg/L	10	7/14/2005
1,2-Dichloroethane (EDC)	ND	10	l	µg/L	10	7/14/2005
1,2-Dibromoethane (EDB)	ND	10	1	µg/L	10	7/14/2005
Naphthalene	120	20	1	μg/L	10	7/14/2005
1-Methylnaphthalene	45	40		µg/L	10	7/14/2005
2-Methylnaphthalene	86	40	1	µg/L	10	7/14/2005
Acetone	ND	100	1	μg/L	10	7/14/2005
Bromobenzene	ND	10	1	μg/L	10	7/14/2005
Bromochloromethane	ND	10	i	µg/L	10	7/14/2005
Bromodichloromethane	ND	10	1	µg/L	10	7/14/2005
Bromoform	ND	10	1	μg/L	10	7/14/2005
Bromomethane	ND	20	1	μg/L	10	7/14/2005
2-Bulanone	ND	100	1	μg/L	10	7/14/2005
Carbon disulfide	ND	100		μg/L	10	7/14/2005
Carbon Tetrachloride	ND	10	1	μg/L	10	7/14/2005
Chlorobenzene	ND	10	1	μg/L .	. 10	7/14/2005
Chloroethane	ND	20	1	μg/L	10	7/14/2005
Chloreform	ND	10	1	µg/L	10	7/14/2005
Chloromethane	ND	10		μg/L	10	7/14/2005
2-Chlorotoluene	ND	10		µg/L	10	7/14/2005
4-Chlorotoluene	ND	10		μg/L	10	7/14/2005
cis-1,2-DCE	ND	10		μg/L	10	7/14/2005
cis-1,3-Dichloropropene	ND	10		μg/L	10	7/14/2005
1,2-Dibromo-3-chloropropane	ND	20		μg/L	10	7/14/2005
Dibromochloromethane	ND	10		μg/L	10	7/14/2005
Dibromomethane	ND	20		μg/L	10	7/14/2005
1,2-Dichlorobenzene	ND	10		μg/L	10	7/14/2005
1,3-Dichlorobenzene	ND	10		μg/L	10	7/14/2005
1,4-Dichlarobenzene .	ND	10		μg/L	10	7/14/2005
Dichlorodifluoromethane	ND	10		μg/L	10	7/14/2005
1,1-Dichloroethane	ND	10		μg/L	10	7/14/2005
1,1-Dichloroethene	ND	10		µg/L	10	7/14/2005
1,2-Dichloropropane	ND	10		μg/L	10	7/14/2005
1,3-Dichloropropane	ND	10		µg/L	10	7/14/2005
2,2-Dichloropropane	ND	10		µg/L	10	7/14/2005
1,1-Dichloropropene	ND	10		μg/L	10	7/14/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT: Lab Order: Intera, Inc.

0507078

Project:

Chama Conoco

Lab ID:

0507078-03

Date: 26-Jul-05

Client Sample ID: MW-8

Collection Date: 7/11/2005 1:03:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	10	μg/L	10	7/14/2005
2-Hexanone	ND	100	µg/L	10	7/14/2005
Isopropylbenzene	41	10	µg/L	10	7/14/2005
4-Isopropylloluene	ND	10	μg/L	10	7/14/2005
4-Methyl-2-pentanone	ND	100	μg/L	10	7/14/2005
Methylene Chloride	ND	30	μg/L	10	7/14/2005
n-Butylbenzene	ND	10	μg/L	10	7/14/2005
n-Propylbenzene	180	10	μg/L	10	7/14/2005
sec-Bulyibenzene	14	10	μg/L	10	7/14/2005
Styrene	ND	10	μg/L	10	7/14/2005
tert-Butylbenzene	ND	10	μg/L	10	7/14/2005
1,1,1,2-Tetrachloroethane	ND	10	μg/L	10	7/14/2005
1,1,2,2-Tetrachloroethane	ND	10	μg/L	10	7/14/2005
Tetrachloroethene (PCE)	ND	10	μg/L	10	7/14/2005
trans-1,2-DCE	ND	10	µg/L	10	7/14/2005
trans-1,3-Dichloropropene	ND	10	µg/L	10	7/14/2005
1,2,3-Trichlorobenzene	ND	10	μg/L	10	7/14/2005
1,2,4-Trichlorobenzene	ND	10	μg/L	10	7/14/2005
1,1,1-Trichloroethane	ND	10	μg/L	10	7/14/2005
1,1,2-Trichloroelhane	ND	10	µg/L	10	. 7/14/2005
Trichloroethene (TCE)	ND	10	μg/L	10	7/14/2005
Trichlorofluoromethane	ND	10	µg/L	10	7/14/2005
1,2,3-Trichloropropane	ND	20	µg/L	10	7/14/2005
Vinyl chloride	ND	10	μg/L	10	7/14/2005
Xylenes, Total	1600	10	μg/L	10	7/14/2005
Surr: 1,2-Dichloroethane-d4	95.4	80-120	%REC	10	7/14/2005
Surr. 4-Bromofluorobenzene	101	80-120	%REC	10	7/14/2005
Surr: Dibromofluoromethane	93.2	80-120	%REC	10	7/14/2005
Surr: Toluene-d8	107	80-120	%REC	10	7/14/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: TRIP BLANK

Lab Order:

0507078

Collection Date:

Project:

Chama Conoco

Lab ID:

0507078-04

Matrix: TRIP BLANK

Date: 26-Jul-05

Analyses	Result	PQL	Qual L	Jnits	DF	Date Analyzed
EPA METHOD 8260: VOLATILES						Analyst: BD
Benzene	ND	1.0	μ	ıg/L	1	7/14/2005
Toluene	ND	1.0	μ	g/L	1	7/14/2005
Elhylbenzene	ND	1.0	μ	ıg/L	1	7/14/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μ	ıg/L	1	7/14/2005
1,2,4-Trimethylbenzene	ND	1.0	μ	ıg/L	1	7/14/2005
1,3,5-Trimethylbenzene	ND	1.0	μ	ıg/L	1	7/14/2005
1,2-Dichloroethane (EDC)	ND	1.0	μ	ıg/L	1	7/14/2005
1,2-Dibromoethane (EDB)	ND	1.0	μ	ıg/L	1	7/14/2005
Naphthalene	ND	2.0	μ	ıg/L	1	7/14/2005
1-Methylnaphthalene	ND	4.0	μ	ıg/L	1	7/14/2005
2-Methylnaphthalene	ND	4.0	μ	ıg/L	1	7/14/2005
Acetone	ND	10	μ	ıg/L	1	7/14/2005
Bromobenzene	ND	1.0	μ	ıg/L	1	7/14/2005
Bromochloromethane	ND	1.0	μ	ıg/L	1	7/14/2005
Bromodichloromethane	ND	1.0	μ	ıg/L	1	7/14/2005
Bromoform	ND	1.0	μ	ıg/L	1	7/14/2005
Bromomethane	ND	2.0	μ	ıg/L	1	7/14/2005
2-Butanone	ND	10	μ	ıg/L	1	7/14/2005
Carbon disulfide	ND	10	μ	ıg/L	1	7/14/2005
Carbon Tetrachloride	ND	1.0	Ļ	ıg/L	1	7/14/2005
Chlorobenzene	ND	1.0	F	.g/L	1	7/14/2005
Chloroethane	ND	2.0	H	ıg/L	1	7/14/2005
Chloroform	ND	1.0	ŀ	ug/L	1	7/14/2005
Chloromethane	ND	1.0		µg/L	1	7/14/2005
2-Chlorotoluene	ND	1.0		ug/L	1	7/14/2005
4-Chlorotoluene	ND	1.0		ug/L	1	7/14/2005
cis-1,2-DCE	ND	1.0	1	µg/L	1	7/14/2005
cis-1,3-Dichloropropene	ND	1.0	1	μg/L	1	7/14/2005
1,2-Dibromo-3-chloropropane	ND	2.0	,	µg/L	1	7/14/2005
Dibromochloromethane	ND	1.0) ;	μg/L	1	7/14/2005
Dibromomethane	ND	2.0) j	μg/L	1	7/14/2005
1,2-Dichlorobenzene	ND	1.0) ,	μg/L	1	7/14/2005
1,3-Dichlorobenzene	ND	1.0) į	µg/L	1	7/14/2005
1,4-Dichlorobenzene	ND	1.0) 1	μg/L	1	7/14/2005
Dichlorodifluoromethane	ND	1.0) 1	µg/L	1	7/14/2005
1,1-Dichloroethane	ND	1.0) (µg/L	1	7/14/2005
1,1-Dichloroethene	ND	1.0) (μg/L	1	7/14/2005
1,2-Dichloropropane	ND	1.0) 1	µg/L	1	7/14/2005
1,3-Dichloropropane	ND	1.0)	µg/L	1	7/14/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2005
1,1-Dichloropropene	ND	1.0)	μg/L	1	7/14/2005

- ND Not Detected at the Reporting Limit
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Date: 26-Jul-05

CLIENT: Lab Order: Intera, Inc.

icia, ilic.

0507078

Project:

Chama Conoco

Lab ID:

0507078-04

Client Sample ID: TRIP BLANK

Collection Date:

Matrix: TRIP BLANK

Analyses	Result	PQL Qt	ial Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	µg/L	1	7/14/2005
2-Hexanone	ND	10	μg/L	1	7/14/2005
Isopropylbenzene	ND	1.0	μg/L	1	7/14/2005
4-Isopropylloluene	ND	1.0	μg/L	1	7/14/2005
4-Methyl-2-pentanone	ND	10	μg/L	1	7/14/2005
Methylene Chloride	ND	3.0	μg/L	1	7/14/2005
n-Bulyibenzene	ND	1.0	μg/L	1	7/14/2005
n-Propylbenzene	ND	1.0	µg/L	1	7/14/2005
sec-Butylbenzene	ND	1.0	µg/L	1	7/14/2005
Styrene	ND	1.0	μg/L	1	7/14/2005
tert-Butylbenzene	ND	1.0	µg/L	1	7/14/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/14/2005
1,1,2,2-Tetrachioroethane	ND	1.0	μg/L	1	7/14/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/14/2005
trans-1,2-DCE	ND	1.0	µg/L	1	7/14/2005
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/14/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/14/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/14/2005
1,1,1-Trichloroethane	ND	1.0	µg/L	1	7/14/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/14/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/14/2005
Trichlorofluoromethane	ND	1.0	μg/L	1	7/14/2005
1,2,3-Trichloropropane	ND	2.0	µg/L	1	7/14/2005
Vinyl chloride	ND	1.0	µg/L	1	7/14/2005
Xylenes, Total	ND	1.0	µg/L	1	7/14/2005
Surr: 1,2-Dichloroethane-d4	96.8	80-120	%REC	1	7/14/2005
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	7/14/2005
Surr: Dibromofluoromethane	92.0	80-120	%REC	1	7/14/2005
Surr: Taluene-d8	96.2	80-120	%REC	1	7/14/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 26-Jul-05

CLIENT:

Intera, Inc.

Work Order:

0507078

Project:

Сһата Сопосо

QC SUMMARY REPORT

Method Blank

Sample ID 5ml rb	Balch ID: R15978	Test Code:	SW8260B	Units: µg/L		Analysis	Date 7/13	/2005	Prep Da	ate	
Client ID:		Run ID:	NEPTUNE_0	EPTUNE_050713A		SeqNo:					
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
· · · · · · · · · · · · · · · ·											
Benzene	0.5	1									J
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1					•				
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	0.662	2									J
2-Butanone	ND	10									
Carbon disulfide	1.416	10									J
Carbon Tetrachloride	ND	1	•	1							
Chlorobenzene	ND	1									
Chloroethane	1.8	2									J
Chloroform	ND	1									
Chloromethane	0.618	1									J
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									
Qualifiers: ND - Not De	tected at the Reporting Limit	***************************************		ike Recovery outsid	a annoated res	oven limite		B - Analyte detecte	din the ence	inted Mathed T	D1

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

^{3 -} Analyte detected in the associated Method Blank

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QC SUMMARY REPORT				Intera, Inc.	CLIENT:
Method Blank				0507078	Work Order:
Wichiod Dialk				Chama Conoco	Project:
		1	ND	ореле	cis-1,3-Dichloroprop
		2	ND	loropropane	1,2-Dibromo-3-chlo
		1	ND	thane	Dibromachlorometh
		2	ND		Dibromomethane
		1	ND	ene	1,2-Dichlorobenzen
		1	ND	ene	1,3-Dichlorobenzen
		1	ND	ene	1,4-Dichlorobenzen
		1	ND	ethane	Dichlorodifluoromel
		1	ND	e	1,1-Dichloroethane
		1	ND	e	1,1-Dichioroethene
		1	ND	ne	1,2-Dichloropropan
		1	ND		1,3-Dichloropropan
		1	ND		2,2-Dichloropropan
		1	ND		1,1-Dichloropropen
		1	ND		Hexachlorobutadie
		10	ND		2-Hexanone
		1	ND)	Isapropylbenzene
		1	ND		4-Isopropylloluene
		10	ND		4-Methyl-2-pentano
, J		3	0.48		Methylene Chloride
		1	ND		n-Butylbenzene
		1	ND		n-Propylbenzene
		1	ND	!	sec-Butylbenzene
		1	ND		Styrene
		1	ND		tert-Butylbenzene
		1	ND		1,1,1,2-Tetrachloro
		1	ND		1,1,2,2-Tetrachloro
	`	1	ND		Tetrachloroethene (
		1	ND	-	trans-1,2-DCE
		1	ND ·	propene	irans-1,3-Dichlorop
		1	ND		1,2,3-Trichlorobenz
		1	ND		1,2,4-Trichlorobenz
		1	ND		1,1,1-Trichloroetha

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Work Order: Project:	Intera, Inc. 0507078 Chama Conoco								QC SUMN		PORT od Blank
1,1,2-Trichioroetha	ane	ND	1								
Trichloroethene (T	CE)	ND	1								
Trichlorofluoromet	hane	ND	1								
1,2,3-Trichioropro	pane	ND	2								
Vinyi chloride		0.512	1							•	J
Xylenes, Total		ND	1								
Surr: 1,2-Dichlo	roethane-d4	10.01	0	10	0	100	80	120	0		
Surr: 4-Bromofi		10.31	0	10	0	103	80	120	0		
Surr: Dibromoffe	uoromethane	9.69	0	10	0	96.9	80	120	0		
Surr: Toluene-d		9.808	0	10	0	98.1	80	120	0		

CLIENT: Intera, Inc.

Project:

Work Order:

0507078

Chama Conoco

QC SUMMARY REPORT

Method Blank

Sample ID 5mL rb-b	Batch ID: R15978	Test Code:	SW8260B	Units: µg/L		Analysis	Date 7/14	/2005	Prep D	ale	
Client ID:		Run ID:	NEPTUNE_0	50713A		SeqNo:	3796	25			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	0.506	1		·							J
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acelone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	ND	2									
2-Butanone	2.734	10									J
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromethane	ND	1									
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									
cis-1,3-Dichloropropene	ND	1									

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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J - Analyte detected below quantitation limits

QC SUMMARY REPORT			Intera, Inc. 0507078	CLIENT: Work Order:
Method Blan			Chama Conoco	Project:
	2	ND	loropropane	1,2-Dibromo-3-chlo
	1	ND	thane	Dibromochlorometh
	2	ND		Dibromomethane
	1	ND	ene	1,2-Dichlorabenzer
	1	ND	ene	1,3-Dichlorobenzer
	1	ND	ene	1,4-Dichlorobenzer
	1	ND	ethane	Dichlorodifluorome
	1	ND	ie	1,1-Dichloroethane
	1	ND	e	1,1-Dichloroethene
	1	ND		1,2-Dichloropropan
	1	ND		1,3-Dichloropropan
	1	ND		2,2-Dichloropropan
	1	ND		1,1-Dichloropropen
	1	ND		Hexachlorobutadie
	10	ND		2-Hexanone
	1	ND	}	isopropyibenzene
	1	ND		4-Isopropylloluene
	10	ND		4-Methyl-2-pentano
J	3	0.58		Methylene Chloride
	1	ND		n-Bulylbenzene
	1	ND		n-Propylbenzene
	1	ND	.	sec-Butylbenzene
	1	ND		Styrene
	1	ND		tert-Butylbenzene
	1	ND		1,1,1,2-Tetrachloro
	1	ND		1,1,2,2-Tetrachloro
	1	ND		Tetrachloroethene
	1	ND	` '	trans-1,2-DCE
	1	ND	propene	trans-1,3-Dichlorop
	1	ND		1,2,3-Trichlorobenz
	1	ND		1,2,4-Trichlorobenz
	1	ND		1,1,1-Trichloroetha
	1	ND		1,1,2-Trichloroetha

R - RPD outside accepted recovery limits

CLIENT: Work Order: Project:	Intera, Inc. 0507078 Chama Conoco								QC SUMMA	RY REPORT Method Blank
Trichloroethene (T	CE)	ND	1	•	•					
Trichlorofluoromel		ND	1							
1,2,3-Trichloropro	pane	ND	2							
Vinyl chloride		ND	1							
Xylenes, Total		ND	1		•					
Surr: 1,2-Dichlo	roethane-d4	9.362	0	10	0	93.6	80	120	0	
Surr: 4-Bromofl	uorobenzene	10.04	0	10	0	100	80	120	0	
Surr: Dibromoff	uoromethane	9.37	0	10	0	93.7	80	120	0	
Surr: Toluene-d	18	10.53	0	10	0	105	80	120	0	

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

Date: 26-Jul-05

CLIENT: Work Order: Intera, Inc. 0507078

Project:

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID 100ng Ics Client ID:	Batch ID: R15978	Test Code: Run ID:	SW8260B NEPTUNE_0	Units: µg/L 50713A		Analysis SeqNo:	Date 7/13 3795		Prep D	ate	
Analyle	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.85	1	20	0,5	102	80	130	0		· · · · · · · · · · · · · · · · · ·	•
Toluene	21.67	1	20	0	108	87.5	128	0			
Chlorobenzene	21	1	20	0	105	76.2	130	0			
1.1-Dichloroethene	20.23	1	20	0	101	73.3	130	0			
Trichloroethene (TCE)	20.05	1	20	0	100	76.9	130	0			
Sample ID 100ng lcs-b	Batch ID: R15978	Test Code:	SW8260B	Units: µg/L		Analysis	Date 7/14	/2005	Prep D	ale	
Client ID:		Run ID:	NEPTUNE_0	50713A		SeqNo:	3796	26			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.86	1	20	0.506	102	80	130	0		•	
Toluene	. 21.31	1	20	0	107	87.5	128	0			
Chlorobenzene	20.62	1	20	0	103	76.2	130	0			
1,1-Dichloroethene	19,88	1	20	0	99.4	73.3	130	0			
			20		99.4	76.9	130				

Sample Receipt Checklist

(marc)	Ctient Name INT	•		•	Date and Time	Received:			
	Work Order Number 0507078			٠	Received by	AMG			
issan)	Checklist completed by	de_	7/	[]O	5				
(man)	Matrix	Carrier name	Clier	nt drop-off					
	Shipping container/cooler in good condition?		Yes	\checkmark	No 🗆	Not Present			
1	Custody seals intact on shipping container/coole	er?	Yes		No 🗌	Not Present		Not Shipped	V
	Custody seals intact on sample bottles?		Yes		No 🗆	N/A	V		
(max)	Chain of custody present?		Yes	$ \mathbf{V} $	No 🗆				
	Chain of custody signed when relinquished and	received?	Yes	$ \checkmark $	No 🗆				
-	Chain of custody agrees with sample labels?		Yes	$ \mathbf{V} $	No 🗆				
	Samples in proper container/bottle?		Yes	$ \mathbf{V} $	No 🗆				
	Sample containers intact?		Yes	\checkmark	No 🗆				
	Sufficient sample volume for indicated test?		Yes	$ \mathbf{Z} $	No 🗆				
_	All samples received within holding time?		Yes	\checkmark	No 🗆				
ļ-	Water - VOA vials have zero headspace?	No VOA vials subr	nitled		Yes 🗹	No 🗆			
	Water - pH acceptable upon receipt?		Yes		No 🗆	N/A 🗹			
	Container/Temp Blank temperature?			_	l° C ± 2 Acceplai f given sufficient				
—	COMMENTS:								
 1					=====				===:
(==)	Client contacted	Date contacted:			Perso	on contacted			
	Contacted by:	Regarding							
	Comments:								
•	****								
_									
					· · · · · · · · · · · · · · · · · · ·				
	Corrective Action								
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		CUST	ODY RECORD	Other: Project Name:	QA/ Std 😅	QC Pac	ckage: evel 4 [_						A 49 All Tel	NA 901 l buqu 1. 50	LYS law erqu 5.34	515 kins l ie, N 15.39	LA NE, 9 ew M	Suite Nexio Fa	PA = 0 :0 87 x 505			7	
				Char	ia	Co	no	0			desta.								utal.c					
Address:	One	Park	Square, Ste 820	Project #:		_		,	šie.	1					117			1-1	V-T					
650	0/ A	meric	as PKWY.	NME-						(yluC														
Alk	oug ve	gue,	Sq. vare, Ste 820 -as PKWY: N.M. 87110	Project Manager: Joe Sampler: Sample Temperatu	1;	— ~ac	·〉		BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)						, PO4, SO4)	8081 Pesticides / PCB's (8082)						or Headspace (Y or N)
Phone #:	(505)246	1600	Sampler:	ake	E	di	dal	- TMB	TPH	15B (G	8.1)	14.11	[2]	되		, NO2,	/PCB		2				eadspi
Fax #:			-2600	Sample Temperatu	ire:		6	5	TEE +	TRE +	nd 801	hod 41	hod 5C	hod 80	A or P/	etals	CI, N	ticides	(AO	mi-V0/				S or He
Date	Time	Matrix	Sample I.D. No.	Number/Valume	PI	eser val	JVE	HEAL No.	BTEX + N	BTEX + N	TPH Meth	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ ,	8081 Pes	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles
7-11-05	1244	Ag.	mw-7	3-VOA	入			1											X					
7-11-05		Ag.	mw-6	3-VOA	X			2											χ					
7-11-05	1303	Ag.	MW-8	3-10A	X			3											X			_		
7-11-05	_	Âg	MW-8 Trip Blank	2-VOA			X	4											X		_			
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Date: -11-0:5 Date:		5	ed By: (Signature) ed By: (Signature)	Received	Da	Ba	· Vic	-7/11/05 1623	Hen	narks:		Dáe	2 i.	5 6	مر	A	- 2	6	te	ju	n,	ele	Cas	é
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COVER LETTER

July 28, 2005

Joseph Tracy

Intera, Inc.

6501 Americas Parkway, NE Ste 820

Albuquerque, NM 87110

TEL: (505) 246-1600

FAX (505) 246-2600

RE: Chama Conoco

Order No.: 0507067

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 10 samples on 7/8/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie. Laboratory Manager

Date: 28-Jul-05

CLIENT:

Intera, Inc.

Project:

Chama Conoco

Lab Order:

0507067

CASE NARRATIVE

EPA Method 8310;

The method blank for the 8310 extraction set had contamination believed to be isolated to only this sample. The soil samples were reextracted and analzed. The data from the second extraction confirmed the results from the initial extraction.

CLIENT:

Intera, Inc.

0507067

Lab Order: Project:

Chama Conoco

Lab ID:

0507067-01

Date: 28-Jul-05

Client Sample ID: SB-1 (1')

Collection Date: 7/5/2005 12:21:00 PM

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES		-			Analyst: BD
Benzene	ND	0.050	mg/Kg	1	7/12/2005
Toluene	ND	0.050	mg/Kg	1	7/12/2005
Ethylbenzene	ND	0.050	mg/Kg	1	7/12/2005
Methyl tert-butyl ether (MTBE)	ND	0.050	mg/Kg	1	7/12/2005
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg	1	7/12/2005
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg	1	7/12/2005
1,2-Dichloroethane (EDC)	ND	0.050	mg/Kg	1	7/12/2005
1,2-Dibromoethane (EDB)	ND	0.050	mg/Kg	1	7/12/2005
Naphthalene	ND	0.10	mg/Kg	1	7/12/2005
1-Methylnaphthalene	ND	0.20	mg/Kg	1	7/12/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	7/12/2005
Acetone	ND	2.0	mg/Kg	1	7/12/2005
Bromobenzene	ND	0.050	mg/Kg	1	7/12/2005
Bromochloromethane	ND	0.050	mg/Kg	1	7/12/2005
Bromodichloromethane	ND	0.050	mg/Kg	1	7/12/2005
Bromoform	ND	0.050	mg/Kg	1	7/12/2005
Bromomethane	ND	0.10	mg/Kg	1	7/12/2005
2-Butanone	ND	1.0	mg/Kg	1	7/12/2005
Carbon disulfide	ND	0.50	mg/Kg	1	7/12/2005
Carbon tetrachloride	ND	0.10	mg/Kg	1	7/12/2005
Chlorobenzene	ND	0.050	mg/Kg	1	7/12/2005
Chloroethane	ND	0.10	mg/Kg	1	7/12/2005
Chloroform	ND	0.050	mg/Kg	1	7/12/2005
Chloromethane	ND	0.050	mg/Kg	1	7/12/2005
2-Chlarololuene	ND	0.050	mg/Kg	1	7/12/2005
4-Chlorotoluene	ND	0.050	mg/Kg	1	7/12/2005
ds-1,2-DCE	ND	0.050	mg/Kg	1	7/12/2005
cis-1,3-Dichloropropene	ND	0.050	mg/Kg	1	7/12/2005
1,2-Dibromo-3-chloropropane	ND	0.10	mg/Kg	1	7/12/2005
Dibromochloromethane	ND	0.050	mg/Kg	1	7/12/2005
Dibromomethane	ND	0.10	mg/Kg	1	7/12/2005
1,2-Dichlorobenzene	ND	0.050	mg/Kg	1	7/12/2005
1,3-Dichlorobenzene	ND	0.050	mg/Kg	1	7/12/2005
1.4-Dichlorobenzene	ND	0.050	mg/Kg	1	7/12/2005
Dichlorodifluoromethane	ND	0.050	mg/Kg	1	7/12/2005
1,1-Dichloroeihane	ND	0.050	mg/Kg	1	7/12/2005
1,1-Dichloroethene	ND	0.050	mg/Kg	1	7/12/2005
1,2-Dichloropropane	ND	0.050	mg/Kg	1	7/12/2005
1,3-Dichloropropane	ND	0.050	mg/Kg	1	7/12/2005
2,2-Dichloropropane	ND	0.050	mg/Kg	1	7/12/2005
1,1-Dichloropropene	ND	0.050	mg/Kg	1	7/12/2005

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: SB-1 (1')

Lab Order:

0507067

Project:

Chama Conoco

Collection Date: 7/5/2005 12:21:00 PM

Date: 28-Jul-05

Lab ID:

0507067-01

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobuladiene	ND	0.050	mg/Kg	1	7/12/2005
2-Hexanone	ND	0.50	mg/Kg	1	7/12/2005
Isopropylbenzene	ND	0.050	mg/Kg	1	7/12/2005
4-Isopropyltoluene	ND	0.050	mg/Kg	1 .	7/12/2005
4-Methyl-2-pentanone	ND	0.50	mg/Kg	1	7/12/2005
Methylene chloride	· ND	0.15	mg/Kg	1	7/12/2005
n-Butyibenzene	ND	0.050	mg/Kg	1	7/12/2005
n-Propylbenzene	ND	0.050	mg/Kg	1	7/12/2005
sec-Butylbenzene	ND	0.050	mg/Kg	1	7/12/2005
Styrene	ND	0.050	mg/Kg	1	7/12/2005
tert-Butylbenzene	ND	0.050	mg/Kg	1	7/12/2005
1,1,1,2-Tetrachloroethane	ND	0.050	mg/Kg	1	7/12/2005
1,1,2,2-Tetrachloroethane	ND	0.050	mg/Kg	1	7/12/2005
Tetrachioroethene (PCE)	ND	0.050	mg/Kg	1	7/12/2005
trans-1,2-DCE	ND	0.050	mg/Kg	1	7/12/2005
trans-1,3-Dichloropropene	ND	0.050	mg/Kg	1	7/12/2005
1,2,3-Trichtorobenzene	ND	0.050	mg/Kg	1	7/12/2005
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg	1	7/12/2005
1,1,1-Trichlorcethane	ИD	0.050	mg/Kg	1	7/12/2005
1,1,2-Trichloroethane	ИĎ	0.050	mg/Kg	1	7/12/2005
Trichloroethene (TCE)	ND	0.050	mg/Kg	1	7/12/2005
Trichlorofluoremethane	ND	0.050	mg/Kg	1	7/12/2005
1,2,3-Trichloropropane	ND	0.10	mg/Kg	1	7/12/2005
Vinyl chloride	ND	0.050	mg/Kg	1	7/12/2005
Xylenes, Total	ND	0.050	mg/Kg	1	7/12/2005
Surr: 1,2-Dichloroethane-d4	96.8	74.4-113	%REC	1	7/12/2005
Surr: 4-Bromofluorobenzene	102	86.2-120	%REC	1	7/12/2005
Surr: Dibromofluoromethane	99.5	77.7-120	%REC	1	7/12/2005
Sur: Toluene-d8	94.8	80.1-113	%REC	1	7/12/2005
PA METHOD 8310: PAHS					Analyst: JMI
Naphihalene	ND	0.50	mg/Kg	10	7/28/2005 1:10:32 AM
1-Methylnaphthalene	ND	0.50	mg/Kg	10	7/28/2005 1:10:32 AM
2-Methylnaphthalene	ND	0.50	mg/Kg	10	7/28/2005 1:10:32 AM
Acenaphthylene	ND	0.50	mg/Kg	10	7/28/2005 1:10:32 AM
Acenaphthene	ND	0.50	mg/Kg	10	7/28/2005 1:10:32 AM
Flucrene	ND	0.30	mg/Kg	10	7/28/2005 1:10:32 AM
Phenanthrene	ND	0.060	mg/Kg	10	7/28/2005 1:10:32 AM
Anthracene	ND	0.060	mg/Kg	10	7/28/2005 1:10:32 AM
Fluoranthene	ND	0.060	mg/Kg	10	7/28/2005 1:10:32 AM
Pyrene	0.063	0.050	mg/Kg	10	7/28/2005 1:10:32 AM
Benz(a)anthracene	0.058	0.0080	mg/Kg	10	7/28/2005 1:10:32 AM
Chrysene	0.058	0.040	mg/Kg	10	7/28/2005 1:10:32 AM

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-01

Date: 28-Jul-05

Client Sample ID: SB-1 (1')

Collection Date: 7/5/2005 12:21:00 PM

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Benzo(b)fluoranthene	0.080	0.020		mg/Kg	10	7/28/2005 1:10:32 AM
Benzo(k)fluoranthene	0.040	0.0050		mg/Kg	10	7/28/2005 1:10:32 AM
Benzo(a)pyrene	0.070	0.0080		mg/Kg	10	7/28/2005 1:10:32 AM
Dibenz(a,h)anthracene	0.028	0.011		mg/Kg	10	7/28/2005 1:10:32 AM
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	10	7/28/2005 1:10:32 AM
Indeno(1,2,3-cd)pyrene	0.093	0.025		mg/Kg	10	7/28/2005 1:10:32 AM
Surr: Benzo(e)pyrene	131	68.4-105	S	%REC	10	7/28/2005 1:10:32 AM

R - RPD outside accepted recovery limits

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-02

Date: 28-Jul-05

Client Sample ID: SB-2 (5')

Collection Date: 7/5/2005 12:55:00 PM

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: BD
Benzene	1.1	1.0	mg/Kg	20	7/13/2005
Toluene	ND	1.0	mg/Kg	20	7/13/2005
Ethylbenzene	26	1.0	mg/Kg	20	7/13/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	mg/Kg	20	7/13/2005
1,2,4-Trimethylbenzene	76	1.0	mg/Kg	20	7/13/2005
1,3,5-Trimethylbenzene	25	1.0	mg/Kg	20 .	7/13/2005
1,2-Dichtoroethane (EDC)	ND	1.0	mg/Kg	20	7/13/2005
1,2-Dibromoethane (EDB)	ND	1.0	mg/Kg	20	7/13/2005
Naphthalene	10	2.0	mg/Kg	20	7/13/2005
1-Methylnaphthalene	4,8	4.0	mg/Kg	20	7/13/2005
2-Methylnaphthalene	10	4.0	mg/Kg	20	7/13/2005
Acetone	ND	40	mg/Kg	20	7/13/2005
Bromobenzene	ND	1.0	mg/Kg	20	7/13/2005
Bromochloromethane	ND	1.0	mg/Kg	20	7/13/2005
Bromodichloromethane	ND	1.0	mg/Kg	20	7/13/2005
Bromoferm	ND	1.0	mg/Kg	20	7/13/2005
Bromomethane	ND	2.0	mg/Kg	20	7/13/2005
2-Butanone	ND	20	mg/Kg	20	7/13/2005
Carbon disulfide	ND	10	mg/Kg	20	7/13/2005
Carbon tetrachloride	ND	2.0	mg/Kg	20	7/13/2005
Chlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
Chloroethane	ND	2.0	mg/Kg	20	7/13/2005
Chloroform	ND	1.0	mg/Kg	20	7/13/2005
Chloromethane	ND	1.0	mg/Kg	20	7/13/2005
2-Chlorotoluene	ND	1.0	mg/Kg	20	7/13/2005
4-Chlorotoluene	ND	1.0	mg/Kg	20	7/13/2005
cis-1,2-DCE	ND	1.0	mg/Kg	20	7/13/2005
cis-1,3-Dichloropropene	ND	1.0	mg/Kg	20	7/13/2005
1,2-Dibromo-3-chloropropane	ND	2.0	mg/Kg	20	7/13/2005
Dibromochloromethane	ND	1.0	mg/Kg	20	7/13/2005
Dibromomethane	ND	2.0	mg/Kg	20	7/13/2005
1,2-Dichlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
1,3-Dichlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
1,4-Dichlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
Dichlorodifluoromethane	ND	1.0	mg/Kg	20	7/13/2005
1,1-Dichloroethane	ND	1.0	mg/Kg	20	7/13/2005
1,1-Dichloroethene	ND	1.0	mg/Kg	20	7/13/2005
1,2-Dichloropropane	ND	1.0	mg/Kg	20	7/13/2005
1,3-Dichloropropane	ND	1.0	mg/Kg	20	7/13/2005
2,2-Dichleropropane	ND	1.0	mg/Kg	20	7/13/2005
1,1-Dichloropropene	ND	1.0	mg/Kg	20	7/13/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

CLIENT: Lab Order:

Intera, Inc. 0507067

Client Sample ID: SB-2 (5')

Collection Date: 7/5/2005 12:55:00 PM

Project:

Chama Conoco

Lab ID:

0507067-02

Matrix: MEOH (SOIL)

Date: 28-Jul-05

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	mg/Kg	20	7/13/2005
2-Hexanone	ND	10	mg/Kg	20	7/13/2005
İsopropyibenzene	2.7	1.0	mg/Kg	20	7/13/2005
4-Isopropyltoluene	ND	1.0	mg/Kg	20	7/13/2005
4-Methyl-2-pentanone	ND	10	mg/Kg	20	7/13/2005
Methylene chloride	ND	3.0	mg/Kg	20	7/13/2005
n-Butylbenzene	ND	1.0	mg/Kg	20	7/13/2005
n-Propylbenzene	15	1.0	mg/Kg	20	7/13/2005
sec-Butylbenzene	1.5	1.0	mg/Kg	20	7/13/2005
Styrene	ND	1.0	mg/Kg	20	. 7/13/2005
tert-Butylbenzene	ND	1.0	mg/Kg	20	7/13/2005
1,1,1,2-Tetrachicroethane	ND	1.0	mg/Kg	20	7/13/2005
1,1,2,2-Tetrachloroethane	ND	1.0	mg/Kg	20	7/13/2005
Tetrachloroethene (PCE)	ND	1.0	mg/Kg	20	7/13/2005
trans-1,2-DCE	ND	1.0	mg/Kg	20	7/13/2005
trans-1,3-Dichloropropene	ND	1.0	mg/Kg	20	7/13/2005
1,2,3-Trichlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
1,2,4-Trichlorobenzene	ND	1.0	mg/Kg	20	7/13/2005
1,1,1-Trichloroethane	ND	1.0	mg/Kg	20	7/13/2005
1,1,2-Trichloroethane	ND	1.0	mg/Kg	20	7/13/2005
Trichloroethene (TCE)	ND	1.0	mg/Kg	20	7/13/2005
Trichlorofluoromethane	ND	1.0	mg/Kg	20	7/13/2005
1,2,3-Trichloropropane	ND	2.0	mg/Kg	20	7/13/2005
Vinyl chloride	ND	1.0	mg/Kg	20	7/13/2005
Xylenes, Total	130	1.0	mg/Kg	20	7/13/2005
Surr: 1,2-Dichloroethane-d4	99.1	74.4-113	%REC	20	7/13/2005
Surr: 4-Bromofluorobenzene	93.5	86.2-120	%REC	20	7/13/2005
Surr: Dibromofluoromethane	91.2	77.7-120	%REC	20	7/13/2005
Sun: Toluene-d8	102	80.1-113	%REC	20	7/13/2005
EPA METHOD 8310: PAHS					Analyst: JM
Naphihalene	1.9	0.25	mg/Kg	5	7/28/2005 12:22:32 A
1-Methylnaphthalene	0.85	0.25	mg/Kg	5	7/28/2005 12:22:32 A
2-Methylnaphthalene	1.7	0.25	mg/Kg	5	7/28/2005 12:22:32 A
Acenaphthylene	ND	0.25	mg/Kg	5	7/28/2005 12:22:32 A
Acenaphthene	ND	0.25	mg/Kg	5	7/28/2005 12:22:32 A
Fluorene	ND	0.15	mg/Kg	5	7/28/2005 12:22:32 A
Phenanihrene	0.094	0.030	mg/Kg	5	7/28/2005 12:22:32 A
Anthracene	ND	0.030	mg/Kg	5	7/28/2005 12:22:32 A
Fluoranthene	0.065	0.030	mg/Kg	5	7/28/2005 12:22:32 A
Pyrene	0.14	0.025	mg/Kg	5	7/28/2005 12:22:32 A
Benz(a)anthracene	0.031	0.0040	mg/Kg	5	7/28/2005 12:22:32 A
Chrysene	0.028	0.020	mg/Kg	5	7/28/2005 12:22:32 A

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 28-Jul-05

CLIENT:

Intera, Inc.

Client Sample ID: SB-2 (5')

Lab Order:

0507067

Project:

Chama Conoco

Collection Date: 7/5/2005 12:55:00 PM

Lab ID:

0507067-02

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Benzo(b)fluoranthene	0.026	0.010	mg/Kg	5	7/28/2005 12:22:32 AM
Benzo(k)fluoranthene	0.014	0.0025	mg/Kg	5	7/28/2005 12:22:32 AM
Benzo(a)pyrene	0.064	0.0040	mg/Kg	5	7/28/2005 12:22:32 AM
Dibenz(a,h)anthracene	0.010	0.0055	mg/Kg	5	7/28/2005 12:22:32 AM
Benzo(g,h,i)perylene	0.010	0.010	mg/Kg	5	7/28/2005 12:22:32 AM
Indeno(1,2,3-cd)pyrene	ND	0.013	mg/Kg	5	7/28/2005 12:22:32 AM
Surr: Benzo(e)pyrene	91.0	68.4-105	%REC	5	7/28/2005 12:22:32 AM

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: Methanol Blank

Lab Order:

0507067

Date: 28-Jul-05

Project:

Collection Date:

Lab ID:

Chama Conoco 0507067-03

Matrix: MEOH

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: BD
Benzene	ND	0.050	mg/Kg	1	7/13/2005
Toluene	ND	0.050	mg/Kg	1	7/13/2005
Ethylbenzene	ND	0.050	mg/Kg	1	7/13/2005
Methyl tert-butyl ether (MTBE)	ND	0.050	mg/Kg	1	7/13/2005
1,2,4-Trimethylbenzene	ND	0.050	mg/Kg	1	7/13/2005
1,3,5-Trimethylbenzene	ND	0.050	mg/Kg	1	7/13/2005
1,2-Dichloroethane (EDC)	ND	0.050	mg/Kg	1	7/13/2005
1,2-Dibromoethane (EDB)	ND	0.050	mg/Kg	1	7/13/2005
Naphthalene	ND	0.10	mg/Kg	1	7/13/2005
1-Methylnaphthalene	ND	0.20	mg/Kg	1	7/13/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	7/13/2005
Acelone	ND	2.0	mg/Kg	1	7/13/2005
.Bromobenzene	ND	0.050	mg/Kg	1	7/13/2005
Bromochloromethane	ND	0.050	mg/Kg	1	7/13/2005
Bromodichloromethane	ND	0.050	mg/Kg	1	7/13/2005
Bromoform	ND	0.050	mg/Kg	1	7/13/2005
Bromomethane	, ND	0.10	mg/Kg	1	7/13/2005
2-Butanone	ND	1.0	mg/Kg	1	7/13/2005
Carbon disulfide	ND	0.50	mg/Kg	1	7/13/2005
Carbon tetrachloride	ND	0.10	mg/Kg	1	7/13/2005
Chlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
Chloroethane	ND	0.10	mg/Kg	1	7/13/2005
Chloroform	ND	0.050	mg/Kg	. 1	7/13/2005
Chloromethane	ND	0.050	mg/Kg	1	7/13/2005
2-Chlorotoluene	ND	0.050	mg/Kg	1	7/13/2005
4-Chlorololuene	ND	0.050	mg/Kg	. 1	7/13/2005
cis-1,2-DCE	ND	0.050	mg/Kg	1	7/13/2005
cis-1,3-Dichloropropene	ND	0.050	mg/Kg	1	7/13/2005
1,2-Dibromo-3-chloropropane	ND	0.10	mg/Kg	1	7/13/2005
Dibromochloromethane	ND	0.050	mg/Kg	1	7/13/2005
Dibromomethane	ND	0.10	mg/Kg	1	7/13/2005
1.2-Dichlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
1,3-Dichlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
1,4-Dichlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
Dichlorodifluoromethana	ND	0.050	mg/Kg	1	7/13/2005
1,1-Dichloroethane	ND	0.050	mg/Kg	1	7/13/2005
1.1-Dichloroethene	ND	0.050	mg/Kg	1	7/13/2005
1,2-Dichloropropane	ND	0.050	mg/Kg	1	7/13/2005
1,3-Dichloropropane	ND	0.050	mg/Kg	1	7/13/2005
2,2-Dichloropropane	ND	0.050	mg/Kg	1	7/13/2005
1,1-Dichloropropena	ND	0.050	mg/Kg	1	7/13/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

I - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-03

Date: 28-Jul-05

Client Sample ID: Methanol Blank

Collection Date:

Matrix: MEOH

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	0.050	mg/Kg	1	7/13/2005
2-Hexanone	ND	0.50	mg/Kg	1	7/13/2005
Isopropylbenzene	ND	0.050	mg/Kg	1	7/13/2005
4-Isopropyltoluene	ND	0.050	mg/Kg	1	7/13/2005
4-Methyl-2-pentanone	ND	0.50	mg/Kg	1	7/13/2005
Methylene chloride	ND	0.15	mg/Kg	1	7/13/2005
n-Butylbenzene	ND	0.050	mg/Kg	1	7/13/2005
n-Propylbenzene	ND	0.050	mg/Kg	1	7/13/2005
sec-Butylbenzene	ND	0.050	mg/Kg	1	7/13/2005
Styrene	ND	0.050	mg/Kg	1	7/13/2005
tert-Butylbenzene	ND	0.050	mg/Kg	1	7/13/2005
1,1,1,2-Tetrachicroethane	ND	0.050	mg/Kg	1	7/13/2005
1,1,2,2-Tetrachloroethane	ND	0.050	mg/Kg	1	7/13/2005
Tetrachloroethene (PCE)	ND	0.050	mg/Kg	1	7/13/2005
trans-1,2-DCE	ND	0.050	mg/Kg	1	7/13/2005
trans-1,3-Dichloropropene	ND	0.050	mg/Kg	1	7/13/2005
1,2,3-Trichlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg	1	7/13/2005
1,1,1-Trichloroethane	. ND	0.050	mg/Kg	1	7/13/2005
1,1,2-Trichloroethane	ND	0.050	mg/Kg	1	7/13/2005
Trichloroethene (TCE)	ND	0.050	mg/Kg	1	7/13/2005
Trichlorofluoromethane	ND	0.050	mg/Kg	1	7/13/2005
1,2,3-Trichloropropane	ND	0.10	mg/Kg	1	7/13/2005
Vinyl chloride	ND	0.050	mg/Kg	1	7/13/2005
Xylenes, Total	ND	0.050	mg/Kg	1	7/13/2005
Surr: 1,2-Dichloroethane-d4	97.5	74.4-113	%REC	1	7/13/2005
Surr: 4-Bromofluorobenzene	101	86.2-120	%REC	1	7/13/2005
Surr: Dibromofluoromethane	101	77.7-120	%REC	1	7/13/2005
Surr: Toluene-d8	93.7	80.1-113	%REC	1	7/13/2005

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: MW-3

Lab Order:

0507067

Collection Date: 7/8/2005 9:59:00 AM

Date: 28-Jul-05

Project:

Chama Conoco

Lab ID:

0507067-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Unit	s DF	Date Analyzed
EPA METHOD 8260: VOLATILES					Analyst: BD
Benzene	ND	1.0	μg/L	1	7/11/2005
Toluene	ND	1.0	μg/L	1	7/11/2005
Ethylbenzene	ND	1.0	μg/L	1	7/11/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	7/11/2005
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	7/11/2005
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/11/2005
Naphthalene	ND	2.0	μg/L	1	7/11/2005
1-Methylnaphthalene	ND	4.0	μg/L	1	7/11/2005
2-Methylnaphthalene	ND	4.0	μg/L	1	7/11/2005
Acetone	ND	10	μg/L	1	7/11/2005
Bromobenzene	ND	1.0	μg/L	1	7/11/2005
Bromochloromethane	ND	1.0	μg/L	1	7/11/2005
Bromodichloromelhane	ND	1.0	μg/L	1	7/11/2005
Bromoform	ND	1.0	μg/L	1	7/11/2005
Bromomelhane	ND	2.0	μg/L	1	7/11/2005
2-Butanone	ND	10	μg/L	1	7/11/2005
Carbon disulfide	ND	10	μg/L	1	7/11/2005
Carbon Tetrachloride .	ND	1.0	μg/L	1	7/11/2005
Chlorobenzene	ND	1.0	μg/L	1	7/11/2005
Chloroethane	ND	2.0	µg/L	1	7/11/2005
Chloroform	ND	1.0	μg/L	1	7/11/2005
Chloromethane	ND	1.0	µg/L	· 1	7/11/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
4-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/11/2005
Dibromochloromethane	ND	1.0	µg/L	1	7/11/2005
Dibromomethane	ND	2.0	μg/L	1	7/11/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,4-Dichlorobenzene	ND	1.0	μ g/L	1	7/11/2005
Dichlorodifluoromethane	ND	1.0	μ g/L	1	7/11/2005
1,1-Dichloroethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethene	ND	1.0	μg/L	1	7/11/2005
1,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,3-Dichtoropropane	ND	1.0	μg/L	1 .	7/11/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloropropene	ND	1.0	μg/L	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT: Lab Order: Intera, Inc.

0507067

Project:

Chama Conoco

Lab ID:

0507067-04

Date: 28-Jul-05

Client Sample ID: MW-3

Collection Date: 7/8/2005 9:59:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
Hexachiorobutadiene	ND	1.0	μg/L	1	7/11/2005
2-Hexanone	ND	10	μg/L	1	7/11/2005
Isopropyibenzene	ND	1.0	μg/L	1	7/11/2005
4-Isopropyltoluene	ND	1.0	μg/L	1	7/11/2005
4-Methyl-2-pentanone	ND	10	μ g/L	1	7/11/2005
Methylene Chloride	ND	3.0	μg/L	1	7/11/2005
π-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
n-Propylbenzene	ND	1.0	μg/L	1	7/11/2005
sec-Bulyibenzene	ND	1.0	μg/L	1	7/11/2005
Styrene	ND	1.0	μg/L	1	7/11/2005
tert-Butyibenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μ g/L	1	7/11/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/11/2005
trans-1,2-DCE	ND	1.0	μg/L .	1	7/11/2005
trans-1,3-Dichloropropene	ND	1.0	μ g/L	1	7/11/2005
1,2,3-Trichlorobenzene	ND	1.0	μ g/L	1	7/11/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1-Trichloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2-Trichloroethane	ND	1.0	µg/L	1	7/11/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/11/2005
Trichlorofluoromethane	ND	1.0	µg/L	1	7/11/2005
1,2,3-Trichloropropane	ND	2.0	µg/L	1	7/11/2005
Vinyl chloride	ND	1.0	μg/L	1	7/11/2005
Xylenes, Total	ND	1.0	μg/L	1	7/11/2005
Surr: 1,2-Dichloroethane-d4	95.6	80-120	%REC	1	7/11/2005
Surr: 4-Bromofluorobenzene	94.6	80-120	%REC	1	7/11/2005
Surr: Dibromofluoromethane	98.3	80-120	%REC	1	7/11/2005
Surr: Toluene-d8	103	80-120	%REC	1	7/11/2005

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT: Lab Order: Intera, Inc.

0507067

Project:

Chama Conoco

Lab ID:

0507067-05

Date: 28-Jul-05

Client Sample ID: MW-4

Collection Date: 7/8/2005 10:13:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES				·	Analyst: BDI
Benzene	ND	1.0	μg/L	1	7/11/2005
Toluene	ND	1.0	μg/L	1	7/11/2005
Ethylbenzene	ND	1.0	μg/L	1	7/11/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μ g/L	1	7/11/2005
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	7/11/2005
1,3,5-Trimethylbenzene	ND	1.0	μ g/ L	1	7/11/2005
1,2-Dichloroethane (EDC)	ND	1.0	μ g/ L	1	7/11/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/11/2005
Naphthalene	ND	2.0	µg/L	1	7/11/2005
1-Methylnaphthalene	ND	4.0	µg/L	1	7/11/2005
2-Methylnaphthalene	ND	4.0	μg/L	1	7/11/2005
Acetone	ND	10	μg/L	1	7/11/2005
Bromobenzene	ND	1.0	μg/L	1	7/11/2005
Bromochloromethane	ND	1.0	μg/L	1	7/11/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/11/2005
Bromoform	ND	1.0	μg/L	1	7/11/2005
Bromomethane	ND	2.0	μg/L	1	7/11/2005
2-Butanone	ND	10	μg/L	1	7/11/2005
Carbon disulfide	ND	10	μg/L	1	7/11/2005
Carbon Tetrachloride	ND	1.0	μg/L	1	7/11/2005
Chlorobenzene	ND	1.0	μg/L	1	7/11/2005
Chloroethane	ND	2.0	μg/L	1	7/11/2005
Chloreform	ND	1.0	µg/L	1	7/11/2005
Chloromethane	ND	1.0	µg/L	1	7/11/2005
2-Chiorotoluene	ND	1.0	μg/L	1	7/11/2005
4-Chlorotoluene	ND	1.0	µg/L	1	7/11/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/11/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/11/2005
Dibromomethane	ND	2.0	μg/L	1	7/11/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
Dichlorodifluoromethane	ND	1.0	µg/L	1	7/11/2005
1,1-Dichloroethane	ND	1.0	µg/L	1	7/11/2005
1,1-Dichloroethene	ND	1.0	μg/L	1	7/11/2005
1,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloropropene	ND	1.0	μg/L	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT:

Intera, Inc.

0507067

Lab Order: Project:

Chama Conoco

Lab ID:

0507067-05

Date: 28-Jul-05

Client Sample ID: MW-4

Collection Date: 7/8/2005 10:13:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	μg/L	1	7/11/2005
2-Hexanone	ND	10	μg/L	1	7/11/2005
Isopropylbenzene	ND	1.0	µg/L	1	7/11/2005
4-Isopropyltoluene	ND	1.0	μg/L	1	7/11/2005
4-Methyl-2-pentanone	ND	10	µg/L	1	7/11/2005
Methylene Chloride	ND	3.0	μg/L	1	7/11/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
n-Propylbenzene	ND	1.0	μg/L	1	7/11/2005
sec-Butylbenzene	ND	1.0	µg/L	1	7/11/2005
Styrene	ND	1.0	μg/L	1	7/11/2005
tert-Butyibenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/11/2005
trans-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	7/11/2005
1,1,1-Trichloroethane	ND	1.0	µg/L	1	7/11/2005
1,1,2-Trichloroelhane	ND	1.0	µg/L	1	7/11/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/11/2005
Trichlorofluoromethane	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichloropropane	ND	2.0	μg/L	1	7/11/2005
Vinyl chloride	ND	1.0	μg/L	1	7/11/2005
Xylenes, Total	ND	1.0	μg/L	1	7/11/2005
Surr: 1,2-Dichlorcethane-d4	94.1	80-120	%REC .	1	7/11/2005
Sur: 4-Bromofluorobenzene	101	80-120	%REC	1	7/11/2005
Surr: Dibromofluoromethane	88.5	80-120	%REC	1	7/11/2005
Surr: Toluene-d8	106	80-120	%REC	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: MW-2

Lab Order:

0507067

Collection Date: 7/8/2005 10:32:00 AM

Date: 28-Jul-05

Project:

Chama Conoco

Lab ID:

0507067-06

Matrix: AQUEOUS

Analyses	Result	PQL	Qual L	J nits	DF	Date Analyzed
EPA METHOD 8260: VOLATILES	· · · · · · · · · · · · · · · · · · ·					Analyst: BDI
Benzene	290	5.0	μ	g/L	5	7/11/2005
Toluene	32	5.0	μ	g/L	5	7/11/2005
Ethylbenzene	720	50	μ	g/L	50	7/12/2005
Methyl tert-butyl ether (MTBE)	ND	5.0	μ	g/L	5	7/11/2005
1,2,4-Trimethylbenzene	400	5.0	μ	g/L	5	7/11/2005
1,3,5-Trimethylbenzene	150	5.0	μ	g/L	5	7/11/2005
1,2-Dichloroethane (EDC)	ND	5.0	μ	g/L	5	7/11/2005
1,2-Dibromoethane (EDB)	ND	5.0	μ	g/L	5	7/11/2005
Naphthalene	150	10	μ	g/L	5	7/11/2005
1-Methylnaphthalene	53	20	μ	g/L	5	7/11/2005
2-Methylnaphthalene	62	20	μ	g/L	5	7/11/2005
Acetone	ND	50	μ	g/L	5	7/11/2005
Bromobenzene	ND	5.0	μ	g/L	5	7/11/2005
Bromochloromethane	ND	5.0	μ	g/L .	5	7/11/2005
Bromodichloromethane	ND	5.0		g/L	5	7/11/2005
Bromoform	ND	5.0	-	g/L	5	7/11/2005
Bromomethane	ND	10		g/L	5	7/11/2005
2-Butanone	ND	50		g/L	5	7/11/2005
Carbon disulfide	ND	50		g/L	5	7/11/2005
Carbon Tetrachloride	· ND	5.0		g/L	5	7/11/2005
Chlorobenzene	ND	5.0	-	g/L	5	7/11/2005
Chloroethane	ND	10	-	g/L	5	7/11/2005
Chloroform	ND	5.0	-	g/L	5	7/11/2005
Chloromethane	ND	5.0	-	g/L	5	7/11/2005
2-Chlorotoluene	ND	5.0	· ·	g/L	5	7/11/2005
4-Chlorotoluene	ND	5.0	-	ig/L	5	7/11/2005
cis-1,2-DCE	ND	5.0	-	g/L	5	7/11/2005
cis-1,3-Dichloropropene	ND	5.0	=	g/L	5	7/11/2005
1,2-Dibromo-3-chloropropane	ND	10	-	g/L	5	7/11/2005
Dibromochloromethane	ND	5.0		g/L	5	7/11/2005
Dibromomethane	ND	10	-	g/L	5	7/11/2005
1,2-Dichlorobenzene	ND	5.0	•	ıg/L	5	7/11/2005
1,3-Dichlorobenzene	ND	5.0	•	ıg/L	5	7/11/2005
1,4-Dichlorobenzene	ND	5.0	-	ıg/L	5	7/11/2005
Dichlorodifluoromethane	ND	5.0		ig/L	5	7/11/2005
1,1-Dichloroethane	ND	5.0		ig/L	5	7/11/2005
1,1-Dichloroethene	ND	5.0	-	ıg/L	5	7/11/2005
1,2-Dichloropropane	ND	5.0	-	ıg/L	5	7/11/2005
1,3-Dichloropropane	ND	5.0	•	ig/L	5	7/11/2005
2,2-Dichloropropane	ND	5.0		ıg/L	5	7/11/2005
1,1-Dichloropropene	ND	5.0	-	ıg/L	5	7/11/2005

Qualifiers:

- ND Not Detected at the Reporting Limit
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Page 13 of 22

CLIENT:

Intera, Inc.

Lab Order: 0507067

Project:

Chama Conoco

Lab ID:

0507067-06

Date: 28-Jul-05

Client Sample ID: MW-2

Collection Date: 7/8/2005 10:32:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	5.0	μg/L	5	7/11/2005
2-Hexanone	ND	50	μg/L	5	7/11/2005
Isopropylbenzene	49	5.0	μg/L	5	7/11/2005
4-Isopropyltoluene	ND	5.0	μg/L	5	7/11/2005
4-Methyl-2-pentanone	ND	50	μg/L	5	7/11/2005
Methylene Chloride	ND	15	μg/L	5	7/11/2005
n-Butylbenzene	ND	5.0	μg/L	5	7/11/2005
n-Propylbenzene	190	5.0	μg/L	5	7/11/2005
sec-Butylbenzene	ND	5.0	μg/L	5	7/11/2005
Styrene	ND	5.0	μg/L	5	7/11/2005
tert-Butylbenzene	ND	5.0	μg/L	5	7/11/2005
1,1,1,2-Tetrachloroethane	ND	5.0	μg/L	5	7/11/2005
1,1,2,2-Tetrachtoroethane	ND	5.0	µg/L	5	7/11/2005
Tetrachtoroethene (PCE)	ND	5.0	μg/L	5	7/11/2005
trans-1,2-DCE	ND	5.0	μg/L	5	7/11/2005
trans-1,3-Dichloropropene	ND	5.0	µg/L	5	7/11/2005
1,2,3-Trichlorobenzene	ND	5.0	μg/L	5	7/11/2005
1,2,4-Trichlorobenzene	ND	5.0	μg/L	5	7/11/2005
1,1,1-Trichloroethane	ND	5.0	μg/L	5	7/11/2005
1,1,2-Trichloroethane	ND	5.0	μg/L	5	7/11/2005
Trichloroethene (TCE)	ND	5.0	μg/L	5	7/11/2005
Trichlorofluoromethane	ND	5.0	µg/L	5	7/11/2005
1,2,3-Trichloropropane	ND	10	μg/L	5	7/11/2005
Vinyl chloride	ND	5.0	μg/L	5	7/11/2005
Xylenes, Total	1800	50	μg/L	50	7/12/2005
Surr: 1,2-Dichloroethane-d4	99.1	80-120	%REC	5	7/11/2005
Surr: 4-Bromofluorobenzene	92.9	80-120	%REC	5	7/11/2005
Surr: Dibromofluoromethane	97.5	80-120	%REC	5	7/11/2005
Sun: Toluene-d8	101	80-120	%REC	5	7/11/2005

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Client Sample ID: MW-1

Lab Order:

0507067

Collection Date: 7/8/2005 10:41:00 AM

Date: 28-Jul-05

Project:

Chama Conoco

Lab ID:

0507067-07

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES					Analyst: BD
Benzene	58	1.0	μg/L	1	7/11/2005
Toluene	2.1	1.0	μg/L	1	7/11/2005
Ethylbenzene	160	10	μg/L	10	7/12/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	7/11/2005
1,2,4-Trimethylbenzene	120	10	μg/L	10	7/12/2005
1,3,5-Trimethylbenzene	68	1.0	μg/L	1	7/11/2005
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/11/2005
Naphthalene	41	2.0	µg/L	1	7/11/2005
1-Methylnaphthalene	19	4.0	μg/L	1	7/11/2005
2-Methylnaphthalene	21	4.0	μg/L	1	7/11/2005
Acetone	ND	10	μg/L	1	7/11/2005
Bromobenzene	ND	1.0	μg/L	1	7/11/2005
Bromochloromethane	ND	1.0	μg/L	1	7/11/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/11/2005
Bromoform	ND	1.0	μ g/ L	1	7/11/2005
Bromomelhane	ND	2.0	μg/L	1	7/11/2005
2-Butanone	ND	10	μg/L	1	7/11/2005
Carbon disulfide	ND	10	μg/L	1	7/11/2005
Carbon Tetrachloride	ND	1.0	μg/L	1	7/11/2005
Chlorobenzene	ND	1.0	μg/L	1	7/11/2005
Chlorcethane	ND	2.0	μg/L	1	7/11/2005
Chloroform	ND	1.0	μg/L	1	7/11/2005
Chloromethane	ND	1.0	μg/L	1	7/11/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
4-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/11/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/11/2005
Dibromomethane	ND	2.0	μg/L	· 1	7/11/2005
1,2-Dichlorobenzene	ND	1.0	ha\r ha\r	1	7/11/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,4-Dichlorobenzene	ND	1.0	µg/L	1	7/11/2005
Dichlorodifluoromethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethene	ND	1.0	μg/L	1	7/11/2005
1,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloropropene	ND	1.0	µg/L	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order: 0507067

Project:

Chama Conoco

Lab ID:

0507067-07

Date: 28-Jul-05

Client Sample ID: MW-1

Collection Date: 7/8/2005 10:41:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	μg/L	1	7/11/2005
2-Hexanone	ND	10	μg/L	1	7/11/2005
Isopropylbenzene	15	1.0	μg/L	1	7/11/2005
4-isopropyltoluene	2.0	1.0	μg/L	1	7/11/2005
4-Methyl-2-pentanone	ND	10	μg/L	1	7/11/2005
Methylene Chloride	ND	3.0	μg/L	1	7/11/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
n-Propyibenzene	59	1.0	μg/L	1	7/11/2005
sec-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
Styrene	ND	1.0	μg/L	1	7/11/2005
tert-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	7/11/2005
trans-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
trans-1,3-Dichloropropene	ND	1.0	hg/r	1	7/11/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1-Trichloroethane	ND	1.0	µg/L	1	7/11/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/11/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/11/2005
Trichlorofluoromethane	ND	1.0	µg/∟	1	7/11/2005
1,2,3-Trichloropropane	ND	2.0	µg/L	1	7/11/2005
Vinyl chloride	ND	1.0	μg/L	1	7/11/2005
Xylenes, Total	290	10	μg/L	10	7/12/2005
Surr: 1,2-Dichloroethane-d4	102	80-120	%REC	1	7/11/2005
Sur: 4-Bromofluorobenzene	93.1	80-120	%REC	1	7/11/2005
Surr: Dibromofluoromethane	104	. 80-120	%REC	1	7/11/2005
Surr: Toluene-d8	96.3	80-120	%REC	1	7/11/2005

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-08

Date: 28-Jul-05

Client Sample ID: MW-5

Collection Date: 7/8/2005 12:35:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
PA METHOD 8260: VOLATILES					Analyst: BD
Benzene	ND	1.0	μg/L	1	7/11/2005
Toluene	4.8	1.0	μg/L	1	7/11/2005
Ethylbenzene	210	20	µg/L	20	7/12/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trimethylbenzene	500	20	μg/L	20	7/12/2005
1,3,5-Trimethylbenzene	150	20	μg/L	20	7/12/2005
1,2-Dichloroethane (EDC)	ND	1.0	µg/ L	1	7/11/2005
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	7/11/2005
Naphthalene	77	2.0	μg/L	1	7/11/2005
1-Methylnaphthalene	26	4.0	μg/L	1	7/11/2005
2-Methylnaphthalene	44	4.0	μg/L	1	7/11/2005
Acetone	ND	10	μg/L	1	7/11/2005
Bromobenzene	ND	1.0	μg/L	1	7/11/2005
Bromochloromethane	ND	1.0	μg/L	1	7/11/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/11/2005
Bromoform	ND	1.0	μg/L	1	7/11/2005
Bromomethane	ND	2.0	μg/L	1	7/11/2005
2-Butanone	ND	10	μg/L	1	7/11/2005
Carbon disulfide	ND	10	μg/L	1	7/11/2005
Carbon Tetrachloride	ND	1.0	μg/L	1	7/11/2005
Chlorobenzene	ND	1.0	μg/L	1	7/11/2005
Chloroethane	ND	2.0	μg/L	1	7/11/2005
Chloroform	ND	1.0	μg/L	1	7/11/2005
Chloromethane	ND	1.0	μg/L	1	7/11/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
4-Chlorololuene	ND	1.0	µg/∟	1	7/11/2005
cls-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/11/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/11/2005
Dibromomethane	ND	2.0	μg/L	1	7/11/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
Dichlorodifluoromethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethane	ND	1.0	µg/L	1	7/11/2005
1,1-Dichloroethene	ND	1.0	μg/L	1	7/11/2005
1,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloropropene	ND	1.0	μg/L	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

* - Value exceeds Maximum Contaminant Level

CLIENT:

Intera, Inc.

Lab Order: 0507067

Project:

Chama Conoco

Lab ID:

0507067-08

Date: 28-Jul-05

Client Sample ID: MW-5

Collection Date: 7/8/2005 12:35:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	µg/L	1	7/11/2005
2-Hexanone	ND	10	µg/L	1	7/11/2005
Isopropylbenzene	15	1.0	µg/L	1	7/11/2005
4-Isopropyitoluene	1.8	1.0	μg/L	1	7/11/2005
4-Methyl-2-pentanone	ND	10	μg/L	1	7/11/2005
Methylene Chloride	ND	3.0	µg/L	1	7/11/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
n-Propylbenzene	70	1.0	μg/L	1	7/11/2005
sec-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
Styrene	ND	1.0	μg/L	1	7/11/2005
tert-Butylbenzene	ND	1.0	µg/L	1	7/11/2005
1,1,1,2-Tetrachioroethane	ND	1.0	. μg/L	1	7/11/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/11/2005
trans-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1-Trichloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/11/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/11/2005
Trichlorofluoromelhane	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichloropropane	ND	2.0	μg/L	1	7/11/2005
Vinyl chloride	ND	1.0	μg/L	1	7/11/2005
Xylenes, Total	940	20	µg/L	20	7/12/2005
Surr: 1,2-Dichloroethane-d4	99.6	80-120	%REC	1	7/11/2005
Surr: 4-Bromofluorobenzene	84.2	80-120	%REC	1	7/11/2005
Surr: Dibromofluoromethane	97.7	80-120	%REC	1	7/11/2005
Surr. Toluene-d8	107	80-120	%REC	1	7/11/2005

ND - Not Detected at the Reporting Limit

I - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order: Project:

0507067

Chama Conoco

Lab ID:

0507067-09

Date: 28-Jul-05

Client Sample ID: MW-9

Collection Date: 7/8/2005 1:01:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES					Analyst: BD
Benzene	ND	1.0	μ g /L	1	7/12/2005
Toluene	ND	1.0	hð/r	1	7/12/2005
Ethylbenzene	ND	1.0	µ g/ L	1	7/12/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/12/2005
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	7/12/2005
1,3,5-Trimethyibenzene	ND	1.0	μg/L	1	7/12/2005
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	7/12/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/12/2005
Naphthalene	ND	2.0	μg/L	1	7/12/2005
1-Methylnaphthalene	ND	4.0	μg/L	1	7/12/2005
2-Methylnaphthalene	ND	4.0	μg/L	1	7/12/2005
Acetone	ND	10	μg/L	1	7/12/2005
Bromobenzene	ИD	1.0	μg/L	1	7/12/2005
Bromochloromethane	ND	1.0	μg/L	1	7/12/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/12/2005
Bremoform	ИD	1.0	μg/L	1	7/12/2005
Bromomethane	ND	2.0	μg/L	1	7/12/2005
2-Butanone	ND	10	μg/L	1	7/12/2005
Carbon disulfide	ND	10	μg/L	1	7/12/2005
Carbon Tetrachloride	ND	1.0	µg/L	1	7/12/2005
Chlorobenzene	ND	1.0	µg/L	1	7/12/2005
Chloroethane	ND	2.0	μg/L	1	7/12/2005
Chloroform	ND	1.0	μg/L	1	7/12/2005
Chloromethane	ND	1.0	μg/L	1	7/12/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/12/2005
4-Chlorotoluene	ND	1.0	µg/L	1	7/12/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/12/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/12/2005
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/12/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/12/2005
Dibromomethane	ND	2.0	µg/L	1	7/12/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/12/2005
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/12/2005
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/12/2005
Dichlorodifluoromethane	ND	1.0	μ g/L	1	7/12/2005
1,1-Dichloroethane	ND	1.0	μg/L	1	7/12/2005
1,1-Dichloroethene	ND	1.0	µg/L	1	7/12/2005
1,2-Dichloropropane	ND	1.0	µg/L	1	7/12/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/12/2005
2,2-Dichloropropane	ND	1.0	μg/L	1	7/12/2005
1,1-Dichloropropene	ND	1.0	μg/L	1	7/12/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-09

Date: 28-Jul-05

Client Sample ID: MW-9

Collection Date: 7/8/2005 1:01:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL Q	ial Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	μg/L	1	7/12/2005
2-Hexanone	ND	10	μg/L	1	7/12/2005
Isopropylbenzene	ND	1.0	μg/L	1	7/12/2005
4-Isopropyltoluene	ND	1.0	μg/L	1	7/12/2005
4-Methyl-2-pentanone	ND	10	μ g/L	1	7/12/2005
Methylene Chloride	ND	3.0	µg/L	1	7/12/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/12/2005
n-Propylbenzene	ND	1.0	μg/L	1	7/12/2005
sec-Butylbenzene	ND	1.0	μg/L	1	7/12/2005
Styrene	ND	1.0	µg/L	1	7/12/2005
tert-Butylbenzene	ND	1.0	μg/L	1	7/12/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/12/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μg/L	1	7/12/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/12/2005
trans-1,2-DCE	ND	1.0	μ g/L	1	7/12/2005
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/12/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/12/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/12/2005
1,1,1-Trichloroelhane	ND	1.0	μg/L	1	7/12/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/12/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/12/2005
Trichloroflucromethane	ND	1.0	µg/L	1	7/12/2005
1,2,3-Trichloropropane	ND	2.0	μg/L	1	7/12/2005
Vinyl chloride	ND	1.0	µg/L_	1	7/12/2005
Xylenes, Total	ND	1.0	μg/L	1	7/12/2005
Surr: 1,2-Dichloroethane-d4	92.8	80-120	%REC	1	7/12/2005
Surr: 4-Bromofluorobenzene	95.1	80-120	%REC	1	7/12/2005
Surr: Dibromofluoromethane	95.7	80-120	%REC	1	7/12/2005
Surr: Toluene-d8	99.0	80-120	%REC	1	7/12/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order:

0507067

Project:

Chama Conoco

Lab ID:

0507067-10

Date: 28-Jul-05

Client Sample ID: Trip Blank

Collection Date:

Matrix: TRIP BLANK

Analyses	Result	PQL (ual Units	DF	Date Analyzed
PA METHOD 8260: VOLATILES					Analyst: BD
Benzene	ND	1.0	µg/L	1	7/11/2005
Toluene	ND	1.0	μg/L	1	7/11/2005
Ethylbenzene	ND	1.0	ի ց/∟	1	7/11/2005
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	7/11/2005
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	7/11/2005
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	7/11/2005
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/11/2005
Naphihalene	ND	2.0	μg/L	1	7/11/2005
1-Methylnaphthalene	ND	4.0	μg/L	1	7/11/2005
2-Methylnaphthalene	ND	4.0	μg/L	1	7/11/2005
Acetone	ND	10	μg/L	1	7/11/2005
Bromobenzene	ND	1.0	µg/L	1	7/11/2005
Bromochloromethane	ND	1.0	µg/L	1	7/11/2005
Bromodichloromethane	ND	1.0	μg/L	1	7/11/2005
Bromoform	ND	1.0	μ g/ L,	1	7/11/2005
Bromemethane	ND	2.0	µg/L	1	7/11/2005
2-Butanone	ND	10	μg/L	1	7/11/2005
Carbon disulfide	ND	10	μg/L	1	7/11/2005
Carbon Tetrachloride	ND	1.0	µg/L	1	7/11/2005
Chlorobenzene	ND	1.0	µg/L	1	7/11/2005
Chloroethane	ND	2.0	µg/L	1	7/11/2005
Chlaroform	ND	1.0	μg/L	1	7/11/2005
Chloromethane	ND	1.0	μg/L	1	7/11/2005
2-Chlorotoluene	ND	1.0	μg/L	1	7/11/2005
4-Chlorololuene	ND	1.0	μg/L	1	7/11/2005
cis-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2-Dibremo-3-chloropropane	ND	2.0	μg/L	1	7/11/2005
Dibromochloromethane	ND	1.0	μg/L	1	7/11/2005
Dibromomethane	ND	2.0	µg/L	1	7/11/2005
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1.3-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/11/2005
Dichlorodifluoromethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloroethene	ND	1.0	µg/L	1	7/11/2005
1,2-Dichloropropane	ND	1.0	μg/L.	1	7/11/2005
1,3-Dichloropropane	ND	1.0	μg/L	1	7/11/2005
2,2-Dichloroprepane	ND	1.0	μg/L	1	7/11/2005
1,1-Dichloropropene	ND	1.0	hã/r	1	7/11/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT:

Intera, Inc.

Lab Order: 0507067

Project:

Chama Conoco

Lab ID:

0507067-10

Date: 28-Jul-05

Client Sample ID: Trip Blank

Collection Date:

Matrix: TRIP BLANK

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
Hexachlorobutadiene	ND	1.0	μg/L	1	7/11/2005
2-Hexanone	ND	10	μg/L	1	7/11/2005
Isopropyibenzene	ND	1.0	μg/L	1	7/11/2005
4-Isopropylloluene	ND	1.0	μg/L	1	7/11/2005
4-Methyl-2-pentanone	ND	10	μg/L	1	7/11/2005
Methylene Chloride	ND	3.0	μg/L	1	7/11/2005
n-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
n-Propylbenzene	ND	1.0	μg/L	1	7/11/2005
sec-Bulyibenzene	ND	1.0	μg/L	1	7/11/2005
Styrene	ND	1.0	μg/L	1	7/11/2005
tert-Butylbenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/11/2005
1,1,2,2-Tetrachloroethane	ND	1.0	μg/ L_	1	7/11/2005
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/11/2005
trans-1,2-DCE	ND	1.0	μg/L	1	7/11/2005
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/11/2005
1,1,1-Trichloroethane	ND	1.0	μg/Ľ	1	7/11/2005
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/11/2005
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/11/2005
Trichlorofluoromethane	ND	1.0	μg/L	1	7/11/2005
1,2,3-Trichloropropane	ND	2.0	μ g/ L	1	7/11/2005
Vinyl chloride	ND	1.0	μ g/ L	1	7/11/2005
Xylenes, Total	ND	1.0	μg/L	1	7/11/2005
Sur: 1,2-Dichloroethane-d4	97.1	80-120	%REC	1	7/11/2005
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	7/11/2005
Surr: Dibromofluoromethane	95.1	80-120	%REC	1	7/11/2005
Surr: Toluene-d8	96.1	80-120	%REC	1	7/11/2005

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 28-Jul-05

CLIENT:

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Method Blank

Sample ID MB-8387	Batch ID: 8387	Test Code: SW8310 Units: mg/Kg				Analysis	Date 7/27	/2005 9:10:27 PM	Prep Date 7/21/2005		
Client ID:		Run ID:	HUGO_050727A		SeqNo:	3837	85				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.05									
1-Methylnaphthalene	ND	0.05									
2-Methylnaphthalene	ND	0.05									
Acenaphthylene	ND	0.05									
Acenaphthene	ND	0.05									
Fluorene	ND	0.03									
Phenanthrene	0.005	0.006									J
Anthracene	ND	0.006									
Fluoranthene	ND	0.006									
Pyrene	ND	0.005									
Benz(a)anthracene	ND	0.0008									
Chrysene	ND	0.004									
Benzo(b)fluoranthene	ND	0.002									
Benzo(k)fluoranthene	ND	0.0005									
Benzo(a)pyrene	ND	8000.0									
Dibenz(a,h)anthracene	ND	0.0011									
Benzo(g,h,i)perylene	ND	0.002									
Indeno(1,2,3-cd)pyrene	ND	0.0025									
Surr: Benzo(e)pyrene	0.1953	0	0.25	0	78.1	68.4	105	0			

Date: 28-Jul-05

CLIENT:

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Method Blank

Sample ID mb-8328	Batch ID: 8328	Test Code:	SW8260B	260B Units: mg/Kg Analysis Date 7/12/2005				Prep Date 7/12/2005			
Client ID:		Run ID:	NEPTUNE_0	50712A		SeqNo:	3791	83			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.05		-							
Toluene	ND	0.05									
Ethylbenzene	ND	0.05									
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	ND	0.05									
1,2-Dibromoethane (EDB)	ND	0.05									
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	2									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	ND	0.1									
2-Butanone	ND	1									
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	ND	0.05									
2-Chlorotoluene	ND	0.05									
4-Chlorotoluene	ND	0.05									
cls-1,2-DCE	ND	0.05									

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

TODOCO ND	0.05 0.1 0.05 0.1 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05		Method Blanl
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ND	0.05		
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140	0.5		
ND	0.05		
ND	0.05		
ND	0.5		
ND	0.15		
ND	0.05		
	ND N	ND 0.15 ND 0.05	ND 0.05

R - RPD outside accepted recovery limits

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CLIENT: Work Order:	Intera, Inc. 0507067								QC SUMM	ARY REPORT Method Blank
Project:	Chama Conoco									
1,1,2-Trichloroetha	ane	ND	0.05							
Trichloroethene (T		ND	0.05							
Trichlorofluoromet		ND	0.05							
1,2,3-Trichloroproj	pane	ND	0.1							
Vinyl chloride	-	ND	0.05							
Xylenes, Total		ND	0.05							
Surr: 1,2-Dichlo	proethane-d4	0.5156	0	0.5	0	103	74.4	113	0	
Surr: 4-Bromoff	uorobenzene	0.4945	0	0.5	0	98.9	86.2	120	0	
Surr: Dibromofle	uoromethane	0.529	0	0.5	0	106	77.7	120	0	
Surr: Toluene-d		0.4694	0	0.5	0	93.9	80.1	113	0	

CLIENT:
Work Order:

Intera, Inc.

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Method Blank

Sample ID 5ml rb	Batch ID: R15950	Test Code:	Code: SW8260B Units: µg/L Analysis Date 7/11/2005				Prep Date				
Client ID:		Run ID:	NEPTUNE_0	50711A		SeqNo:	3787	09			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	0.446	1									J
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromelhane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomelhane	0.684	2									J
2-Butanone	ND	10									
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromathane	0.608	1									J
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									
cls-1,3-Dichloropropene	ND	1									

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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QC SUMMARY REPORT				ENT: Intera, Inc.
Method Blan				k Order: 0507067
Mediod Blatt				ect: Chama Conoco
		2	ND	bromo-3-chloropropane
		1	ND	nochloromethane
		2	ND	nomethane
		1	ND	chlorobenzene
		1	ND	chlorobenzene
		1	ND	chlorobenzene
	•	1	ND	prodifiuoromethane
		1	ND	ichloroethane
	·	1	ND	ichloroethene
		1	ND	ichloropropane
		1	ND	ichloropropane
		1	ND	ichloropropane
		1	ND	ichloropropene
		1	ND	chlorobutadiene
		10	ND	tanone
		1	ND	pylbenzene
		1	ND	propylloluene
		10	ND	hyl-2-pentanone
j		3	0.44	vlene Chloride
		1	ND	yibenzene
		1	ND	pylbenzene
		1	ND	utylbenzene
		1	ND	ne
		1	ND	utylbenzene
		1	ND	2-Tetrachloroethane
		1	ND	2-Tetrachioroethane
		1	ND	chloroelhene (PCE)
		1	ND	1,2-DCE
		1	ND	1,3-Dichloropropene
		1	ND	Trichlorobenzene
		1	ND	Trichlorobenzene
		1	ND	Trichloroethane
		1	ND	Trichloroethane

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

CLIENT: Work Order: Project:	Intera, Inc. 0507067 Chama Conoco								QC SUMM	Method Blank
Trichloroethene (T	CE)	ND	1		-					
Trichlorofluoromet		ND	1							
1,2,3-Trichloroprop	pane	ND	2							
Vinyl chloride		ND	1							
Xylenes, Total		ND	1							
Surr: 1,2-Dichlo	roethane-d4	9.742	0	10	0	97.4	80	120	0	
Surr: 4-Bromofile		9.832	0	10	0	98.3	80	120	0	
Surr: Dibromofit		9,32	0	10	0	93.2	80	120	0	
Surr: Toluene-d		10.86	0	10	0	109	80	120	0	

Date: 28-Jul-05

CLIENT:

Intera, Inc.

Work Order: Project: 0507067

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID Ics-8328	Batch ID: 8328	Test Code:	SW8260B	Units: mg/Kg		Analysis	Date 7/12	/2005	Prep D	ate 7/12/200)5
Client ID:		Run ID:	NEPTUNE_0	50712A		SeqNo:	3791	84			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.9955	0.05	1	0	99.6	79	133	0	•		
Toluene	0.992	0.05	1	0	99.2	74.3	124	0			
Chlorobenzene	1.012	0.05	1	0	101	81.3	126	0			
1,1-Dichloroethene	1.022	0.05	1	0	102	71.3	144	0			
Trichloroethene (TCE)	0.8915	0.05	1	1 0		70.2					
Sample ID Icsd-8328	Balch ID: 8328	Test Code:	SW8260B	Units: mg/Kg		Analysis	Date 7/12	/2005	Prep Da	ate 7/12/200)5
Client ID:		Run ID:	NEPTUNE_0	50712A		SeqNo:	3791	85			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.9608	0.05	1	0	96.1	79	133	0.9955	3.55	20	
Toluene	1.103	0.05	1	0	110	74.3	124	0.992	10.6	20	
Chlorobenzene	1.041	0.05	1	0	104	81.3	126	1.012	2.78	20	
1,1-Dichioroethene	0.9663	0.05	1	0	96.6	71.3	144	1.022	5.63	20	
Trichloroethene (TCE)	0.96	0.05	1	0	96.0	70.2	124	0.8915	7.40	20	
Sample ID 100ng Ics	Batch ID: R15950	Test Code:	SW8260B	Units: µg/L		Analysis	Date 7/11	/2005	Prep Da	ate	
Client ID:		Run ID:	NEPTUNE_0	50711A		SeqNo:	3787	10			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.66	1	20	0	103	80	130	0			
Toluene	21.3	1	20	0	107	87.5	128	0			
Chlorobenzene	21.4	1	20	0	107	76.2	130	0			
1,1-Dichloroethene	20.62	1	20	0	103	73.3	130	0			
Trichloroethene (TCE)	19.74	1	20	0	98.7	76. 9	130	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID 100ng lcsd	Batch ID: R15950	Test Code:	est Code: SW8260B Units: µg/L				Date 7/11	/2005	Prep D	ate	
Client ID:		Run ID:	NEPTUNE_0	50711A		SeqNo:	3787	11			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.73	1	20	0	93.7	80	130	20.66	9.77	11	
Toluene	21.73	1	20	0	109	87.5	128	21.3	1.98	12.2	
Chlorobenzene	19.98	1	20	Đ	99.9	76.2	130	21.4	6.85	12	
1,1-Dichloroethene	19.2	1	20	0	98.0	73.3	130	20.62	7.14	19.3	
Trichloroethene (TCE)	18.66	1	20	0	93.3	76.9	130	19.74	5.58	15.5	
											•
Sample ID 100ng Ics	Batch ID: R15967	Test Code:	SW8260B	Units: µg/L		Analysis	Date 7/12	/2005	Prep Da	ate	
Sample ID 100ng Ics Client ID:	Batch ID: R15967	Test Code: Run ID:	SW8260B NEPTUNE_0			Analysis SeqNo:	Date 7/12 3791		Prep D	ate	
•	Batch ID: R15967 Result			50712A	%REC	•	3791		Prep Di %RPD	ate RPDLimit	Qual
Client ID: Analyte		Run ID:	NEPTUNE_0	50712A	%REC 95.2	SeqNo:	3791	94	·		Qual
Client ID: Analyte Benzene	Result	Run ID:	NEPTUNE_0	SPK Ref Val		SeqNo: LowLimit	3791 HighLimit	RPD Ref Val	·		Qual
Client ID: Analyte Benzene Toluene	Result 19.04	Run ID:	NEPTUNE_0 SPK value	SPK Ref Val	95.2	SeqNo: LowLimit	3791 HighLimit 130	RPD Ref Val	·		Qual
Client ID: Analyte Benzene	Result 19.04 20.05	Run ID:	NEPTUNE_0 SPK value 20 20	50712A SPK Ref Val 0 0	95.2 100	SeqNo: LowLimit 80 87.5	3791 HighLimit 130 128	RPD Ref Val 0 0	·		Qual

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-8322	Batch ID: 8322	Test Code	: SW8310	Units: mg/Kg		Analysis	Date 7/20	/2005 5:36:38 PM	Prep D	ale 7/11/200	15
Client ID:		Run ID:	HUGO_0507	19A		SeqNo:	3821	70			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLlmit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Naphthalene	0.6853	0.05	1	0	68.5	49.1	92,3	0			
1-Methylnaphthalene	0.7333	0.05	1	0	73.3	49.7	93.6	0			
2-Methylnaphthalene	0.7178	0.05	1	0	71.8	50.1	91.7	0			
Acenaphthylene	0.7688	0.05	1	0	76.9	54	93	0			
Acenaphthene	0.7765	0.05	1	0	77.7	49.5	93.6	0			
Fluorene	0.079	0.03	0.1	0	79.0	46.8	93.4	0			
Phenanthrene	0.044	0.006	0.0503	0	87.5	48.7	104	0			
Anthracene	0.041	0.006	0.0503	0	81.5	47.5	102	0			
Fluoranthene	. 0.0875	0.006	0.1003	0	87.2	46.3	108	0			
Pyrene	0.08175	0.005	0.1	0	81.8	43.8	109	0			
Benz(a)anthracene	0.009	0.0008	0.01	0	90.0	40.3	115	0			
Chrysene	0.04225	0.004	0.0503	0	84.0	42.6	107	0			
Benzo(b)fluoranthene	0.0095	0.002	0.0125	0	76.0	48.6	107	0			
Benzo(k)fluoranthene	0.0055	0.0005	0.00625	0	88.0	23.3	136	0			
Benzo(a)pyrene	0.00475	8000.0	0.00628	0	75.6	33.4	117	0			
Dibenz(a,h)anthracene	0.0115	0.0011	0.0125	0	92.0	27.3	139	0			
Benzo(g,h,i)perylene	0.011	0.002	0.0125	0	88.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.01948	0.0025	0.0251	0	77.6	39.9	125	0			

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-8387	Batch ID: 8387	Test Code	: SW8310	Units: mg/Kg		Analysis	Date 7/27	/2005 9:58:26 PM	Prep Date 7/21/2005				
Client ID:		Run ID:	HUGO_0507	27A		SeqNo:	3837	87					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Naphthalene	0.7998	0.05	1	0	80.0	49.1	92.3	0					
1-Methylnaphthalene	0.8635	0.05	1	0	86.4	49.7	93.6	0					
2-Mathylnaphthalene	0.867	0.05	1	0	86.7	50.1	91.7	0					
Acenaphthylene	0.762	0.05	1	0	76.2	54	93	0					
Acenaphthene	0.8165	0.05	1	0	81.7	49.5	93.6	0					
Fluorene	0.085	0.03	0.1	0	85.0	46.8	93.4	0					
Phenanthrene	0.04975	0.006	0.0503	0.005	89.0	48.7	104	0					
Anthracene	0.044	0.006	0.0503	0	87.5	47.5	102	0					
Fluoranthene	0.08925	0.006	0.1003	0	89.0	46.3	108	0					
Pyrene	0.09925	0.005	0.1	0	99.3	43.8	109	٥					
Benz(a)anthracene	0.00775	0.0008	0.01	0	77.5	40.3	115	0					
Chrysene	0.0523	0.004	0.0503	0	104	42.6	107	0					
Benzo(b)fluoranthene	0.01025	0.002	0.0125	0	82.0	48.6	107	0			•		
Benzo(k)fluoranthene	0.0055	0.0005	0.00625	0	88.0	23.3	136	0					
Benzo(a)pyrene	0.005	8000.0	0.00628	0	79.6	33.4	117	0					
Dibenz(a,h)anthracene	0.01275	0.0011	0.0125	0	102	27.3	139	0					
Benzo(g,h,i)perylene	0.01033	0.002	0.0125	0	82.6	38.2	117	0					
Indeno(1,2,3-cd)pyrene	0.02208	0.0025	0.0251	0	87.9	39.9	125	0					

Intera, Inc.

Work Order:

0507067

Project:

Chama Conoco

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID LCSD-8387	Batch ID: 8387	Test Code	SW8310	Units: mg/Kg		Analysis	Date 7/27	/2005 11:34:31 PM	Prep Date 7/21/2005			
Client ID:		Run ID:	HUGO_05072	27A		SeqNo:	3837	93				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Naphthalene	0.8243	0.05	1	0	82.4	49.1	92.3	0.7998	3.02	20		
1-Methylnaphthalene	0.8995	0.05	1	0	90.0	49.7	93.6	0.8635	4.08	20		
2-Methylnaphthalene	0.8895	0.05	1	0	89.0	50.1	91.7	0.867	2.56	20		
Acenaphthylene	0.7415	0.05	1	0	74.2	54	93	0.762	2.73	20		
Acenaphthene	0.833	0.05	1	0	83.3	49.5	93.6	0.8165	2.00	20		
Fluorene	0.08575	0.03	0.1	0	85.8	46.8	93.4	0.085	0.878	20		
Phenanthrene	0.054	0.006	0.0503	0.005	97.4	48.7	104	0.04975	8.19	20		
Anthracene	0.044	0.006	0.0503	0	87.5	47.5	102	0.044	0	20		
Fluoranthene	0.08925	0.008	0.1003	0	89.0	46,3	108	0.08925	0	20		
Pyrene	0.1	0.005	0.1	0	100	43.8	109	0.09925	0.753	20		
Benz(a)anthracene	0.008	0.0008	0.01	0	80.0	40.3	115	0.00775	3.17	20		
Chrysene	0.0445	0.004	0.0503	0	88.5	42.6	107	0.0523	16.1	20 .		
Benzo(b)fluoranthene	0.0105	0.002	0.0125	0	84.0	48.6	107	0.01025	2.41	20		
Benzo(k)fluoranthene	0.0055	0.0005	0.00625	0	88.0	23.3	136	0.0055	0	20		
Benzo(a)pyrene	0.005	0.0008	0.00628	0	79.6	33.4	117	0.005	0	20		
Dibenz(a,h)anthracene	0.01275	0.0011	0.0125	0	102	27.3	139	0.01275	0	20		
Benzo(g,h,l)perylene	0.0105	0.002	0.0125	O	84.0	38.2	117	0.01033	1.68	20		
Indeno(1,2,3-cd)pyrene	0.02275	0.0025	0.0251	O	90.6	39.9	125	0.02208	3.01	20		

Client Name INT Date and Time Received: 7/8/2005 Work Order Number 0507067 Received by ΑT 7/8/05 Checklist completed by Matrix Client drop-off Carrier name Yes V No 🗆 Not Present Shipping container/cooler in good condition? Yes 🗌 No 🗆 Custody seals intact on shipping container/cooler? Not Present ablaNot Shipped Yes 🔽 No 🗆 Custody seals intact on sample bottles? N/A Yes 🗹 No 🗆 Chain of custody present? Yes 🗹 No 🗆 Chain of custody signed when relinquished and received? No 🗆 Yes 🗹 Chain of custody agrees with sample labels? Yes V No \square Samples in proper container/bottle? No \square Yes 🗹 Sample containers intact? Yes 🗹 No 🗆 Sufficient sample volume for indicated test? Yes 🔽 No 🗆 All samples received within holding time? No VOA vials submitted Yes 🗹 No 🗆 Water - VOA vials have zero headspace? Yes No 🗀 N/A 🗹 Water - pH acceptable upon receipt? Container/Temp Blank temperature? **4º** 4° C ± 2 Acceptable If given sufficient time to cool. COMMENTS: Date contacted: Person contacted Client contacted Regarding Contacted by: Comments: Corrective Action

Sample Receipt Checklist

				Accreditation Applied: NELAC USACE U							織	無数									ATL				
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Client:	-,		7 .	Project Name:								- The state of the		Te	ouqu I. 50	6.34	15.39	975	Fa	x 50	'109 5.34	5.41	07		
Client:	n-tes	~ <u></u>	nc _i	Chamo	i C	016	0		www.hallenvironmental.com ANALYSIS REQUEST																
Address:	Dne	Park	Square, Ste 820	Project #:	- 3	<u> </u>	-1-	- n D							412	, (5)		1=[7]	U=						
6501	1 Ame	ricas	PKWY. ME	NME-PST-01-03						Inly	iesel)														
Albun	vergne	, NN	Square, Ste 820 PKWY. ME 1 87110	Project Manager: Joe Tracy					s (8021)	+ TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)							Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	s (8082)					(Nan V) assersbessel an addition of	Ce LT UI'N
Phone #: ((505)	246-	-160D	Sampler: Blake Eldridge Sample Temperature: 4					+ TMB	+ TPH (15B M(18.1)	04.13	021)	(F)		Ca, Mg)	, NO,	s/PCB		A			Landons	leauspa
	505)	Sample Temperature:					MTBE	MTBE -	08 pot	thod 4	thod 5	3 pod:	JA or	1 etals	√a, K, I	CI, NC	sticide	(A)	(Semi-VOA)			1 5	95 OF C		
Date	Time	Matrix	Sample I.D. No.	Number/Volume		eservativ	ie MECH	HEAL No.	BTEX + N	BTEX + N	TPH Meth	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	B310 (PNA or(PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F,	8081 Pesticides / PCB's (8082)	8260 (VDA)	8270 (Se			Ain Gubbl	AIL BUDDI
7-5-05	12:24	Soil	5B-1(1')	20141S 1-40E			2 6	50167-1							X					X					
7-5-05	12:55	Soil	SB-2(5')	2 VI als 1-407		- 1	2	-2							X					X			+	_	_
-	_		Lab MEOH	Blank				-3												Χ			_	_	_
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