Nevada
Environmental
Restoration
Project

DOE/NV--746

Closure Report for
Corrective Action Unit 230:
Area 22 Sewage Lagoons
And
Corrective Action Unit 320:
Area 22 Desert Rock Airport
Strainer Box
Nevada Test Site Nevada

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Revision: 0

July 2001

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National Nuclear Security Administration
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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 230:
AREA 22 SEWAGE LAGOONS
AND
CORRECTIVE ACTION UNIT 320:
AREA 22 DESERT ROCK AIRPORT
STRAINER BOX,
NEVADA TEST SITE, NEVADA**

Controlled Copy No. 1

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Revision 0

July 2001

**Prepared for the U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
under Contract No. DE-AC08-96NV11718**

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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 230:
AREA 22 SEWAGE LAGOONS
AND
CORRECTIVE ACTION UNIT 320:
AREA 22 DESERT ROCK AIRPORT
STRAINER BOX,
NEVADA TEST SITE, NEVADA**

Approved by:

Janet L. Appenzeller-Wing, Project Manager
Industrial Sites Project

Date:

7/2/01

Approved by:

Runore C. Wycoff, Director
Environmental Restoration Division

Date:

7/2/01

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ACRONYMS AND ABBREVIATIONS

BN	Bechtel Nevada
CADD	Corrective Action Decision Document
CAIP	Corrective Action Investigation Plan
CAP	Corrective Action Plan
CAS	Corrective Action Site
CAU	Corrective Action Unit
COC	Constituent of Concern
CR	Closure Report
DOE/NV	U.S. Department of Energy, Nevada Operations Office
FFACO	Federal Facility Agreement and Consent Order
ft	feet
JHA	Job Hazard Analysis
m	meter
m ³	cubic meter
mg/kg	milligram per kilogram
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NNSA/NV	National Nuclear Security Administration Nevada Operations Office
NTS	Nevada Test Site
ppm	parts per million
TPH	Total Petroleum Hydrocarbon
yd ³	cubic yard

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EXECUTIVE SUMMARY

The Area 22 Sewage Lagoons, Corrective Action Unit (CAU) 230, and the Area 22 Desert Rock Airport Strainer Box, CAU 320 was clean-closed following the approved Corrective Action Decision Document closure alternative and in accordance with the Federal Facility Agreement and Consent Order (FFACO, 1996). The CAU consists of two Corrective Action Sites (CASs):

- 22-03-01 - Sewage Lagoon (CAU 230)
- 22-99-01 - Strainer Box (CAU 320)

Included with CAS 22-99-01 is a buried Imhoff tank and a sludge bed.

Characterization activities indicated that only the sludge bed (CAS 22-99-01) contained constituents of concern (COCs) above action levels and required remediation. The COC detected was Total Petroleum Hydrocarbons (TPH) as diesel.

The Area 22 Sewage Lagoons site was used for the disposal of sanitary sewage from the Camp Desert Rock Facility and was in operation from 1951 to 1958. It consisted of a buried Imhoff tank (solid/liquid separator), strainer box, sludge bed, sewage lagoons, and associated piping.

The clean-closure corrective action consisted of excavation, disposal, verification sampling, backfilling, and regrading. Best management practices were done at those areas which were found not to have COCs above action levels. This included backfilling and grading the eroded area at the buried Imhoff tank and filling the strainer box and manholes associated with the septic system with a cement/grout slurry.

Closure activities began on January 24, 2001, and ended on April 25, 2001. A total of 869 cubic meters (1,136 cubic yards) of impacted soil was excavated and disposed. Construction debris was also removed and disposed. Verification samples were collected from the bottom and sidewalls of the excavation on March 13 and April 9, 2001. Samples were analyzed for TPH full scan and TPH diesel, respectively. The sample results indicated that the impacted soil was related to the asphalt and not a petroleum hydrocarbon spill. Sample results also indicated that all impacted soil above the action level was removed from the bottom of the excavation and the lateral extent of impacted soil was defined. Therefore, with concurrence from the Nevada Division of Environmental Protection (NDEP), not all the asphalt was removed from the sidewalls prior to backfilling. The asphalt does not constitute a hazard to human health or the environment and clean closure with no use restrictions was approved.

The closure was completed following the approved Corrective Action Plan. Waste above the petroleum hydrocarbon action level of 100 mg/kg was disposed in the Area 6 Hydrocarbon

Landfill. All construction debris was disposed in the Area 9 Construction Landfill or the Area 23 Sanitary Landfill.

Therefore, the U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office requests that a Notice of Completion be issued by the NDEP for CAU 230, Area 22 Sewage Lagoons and CAU 320 Area 22 Desert Rock Airport Strainer Box, and that CAU 230/320 be moved from Appendix III to Appendix IV of the FFACO, "Closed Corrective Action Units." Because this is a clean closure, post-closure monitoring is not required at the site.

1.0 INTRODUCTION

This Closure Report (CR) describes the remediation activities performed and the results of verification sampling conducted at Corrective Action Unit (CAU) 230, Area 22 Sewage Lagoons and CAU 320, Area 22 Desert Rock Airport Strainer Box. The CAU is currently listed in Appendix III of the Federal Facility Agreement and Consent Order (FFACO, 1996). The CAU is located in Area 22 of the Nevada Test Site (NTS) (Figure 1) and consists of the following Corrective Action Sites (CASs):

- 22-03-01 - Sewage Lagoon (CAU 230)
- 22-99-01 - Strainer Box (CAU 320)

Included with CAS 22-99-01 is a buried Imhoff tank and a sludge bed. These CAUs will be collectively referred to in this plan as the Area 22 Sewage Lagoons site.

Site characterization activities were done during September 1999. Characterization of the manholes associated with the septic system leading to the Imhoff tank was done during March 2000. The results of the characterization presented in the Corrective Action Decision Document (CADD) indicated that only the sludge bed (CAS 22-99-01) contained constituents of concern (COC) above action levels and required remediation (U.S. Department of Energy, Nevada Operations Office [DOE/NV], 2000a).

1.1 PURPOSE

- The purpose of this CR is to provide documentation of the completed corrective action and to provide data confirming the corrective action. The corrective action was performed in accordance with the approved Corrective Action Plan (CAP) (DOE/NV, 2000b) and consisted of clean closure by excavation and disposal.

The Area 22 Sewage Lagoons site was used for the disposal of sanitary sewage from the Camp Desert Rock Facility and was in operation from 1951 to 1958. It consisted of a buried Imhoff tank (solid/liquid separator), strainer box, sludge bed, sewage lagoons, and associated piping (Figure 2).

Based on the sample results from the site characterization, the only COC detected was total petroleum hydrocarbons (TPH) as diesel range organics. The sludge bed contained soil with TPH as diesel range organics at levels of up to 580 milligrams per kilogram (mg/kg), which exceeds the Nevada Division of Environmental Protection (NDEP) regulatory action level of 100 mg/kg for TPH (Nevada Administrative Code [NAC], 1996).

During closure activities, only asphalt and construction debris was observed and excavated. It was determined through visual inspection, field screening, and verification sampling that the TPH as diesel range organics was associated with the asphalt and not a diesel fuel release. A detailed discussion is provided in Section 4.0.

1.2 SCOPE

The scope of work for this project consists of the following activities:

- Preplanning and site preparation, including preparation of plans and permits, delineation of excavation boundaries, and mobilization of equipment and personnel to the site.
- Excavation of soil containing petroleum hydrocarbons above 100 mg/kg from the sludge bed to a maximum of 15- by 15- by 3- meters (m) (50- by 50- by 10- feet [ft]).
- Excavation of construction debris.
- Conduct best management practices at the system components which were found to contain COCs below regulatory levels.
- Collection of soil samples to verify that COCs have been removed to approved levels.
- Disposal of excavated materials following applicable federal, state, and U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office (NNSA/NV) requirements following Section 2.3 of the CAP (DOE/NV, 2000b).
- Decontamination of equipment as necessary.
- Backfilling and grading of the site.

1.3 CR CONTENTS

This document is divided into the following sections in accordance with the approved FFACO CR standardized outline:

- Section 1.0 - Introduction
- Section 2.0 - Closure Activities
- Section 3.0 - Waste Disposition
- Section 4.0 - Closure Verification Results
- Section 5.0 - Conclusions
- Section 6.0 - References

Certain sections and appendices of this document have been modified from the approved FFACO outline. The following FFACO sections and appendices have not been included or revised as indicated below:

- Use Restriction - Not applicable. The site was clean-closed.
- Closure Certification - Not applicable.
- As-Built Documentation - Not applicable. No engineered structures were constructed.
- Modifications to the Post-Closure Plan - Not applicable. The site was clean-closed.

The appendices included in this document are provided as follows:

- Appendix A: Photographs of Closure Activities
- Appendix B: Records of Technical Change
- Appendix C: Waste Disposition Documentation
- Appendix D: Verification Sample Analytical Reports

1.3.1 DATA QUALITY OBJECTIVES

The data quality objectives (DQOs) used for the clean closure of CAU 230/320 were adapted from the Corrective Action Investigation Plan (CAIP) (DOE/NV, 1999). The characterization activities determined that the only COC was TPH as diesel range organics and was found at the sludge bed (CAS 22-99-01) (DOE/NV, 2000a). A 15- by 15- by 3- meters (m) (50- by 50- by 10- feet [ft]) area was determined to be above the NDEP regulatory action level of 100 mg/kg. Therefore, only the site conceptual model and the TPH relevant sections of the CAIP DQOs (DOE/NV, 1999) are applicable for CAU 230/320 clean closure.

The NDEP approved CAP (DOE/NV, 2000b) documented the location and number of samples required to verify that the all of the TPH impacted soil above the 100 mg/kg regulatory limit had been removed. A comparison of the verification data to the data quality criteria specified within the CAIP DQOs is provided in Section 4.1. Based on the evaluation provided in Section 4.1, the site conceptual model dimensions had to be modified to the account for the presence of asphalt within the sludge beds. However, all specified verification samples were collected and the analytical data meet the specified DQO quality criteria.

2.0 CLOSURE ACTIVITIES

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

2.1.1 PREPLANNING AND SITE PREPARATION

Several planning documents were prepared prior to beginning corrective action activities at CAU 230/320. These plans included the CAP (DOE/NV, 2000b), Field Management Plan (Bechtel Nevada [BN], 2000), a Job Hazard Analysis (JHA), and an excavation permit. In addition, a National Environmental Policy Act Checklist was prepared and approved and a site survey was performed by a biologist. Evidence of tortoise habitation or other threatened or endangered species was not found.

Site preparation involved a utility survey, mobilization of equipment to the site, and designation of the remediation zone. There was an active above-ground power line present at the site. However, it did not impact site activities or create a safety hazard. A survey of underground utilities was done so that excavations would not cross any utility lines. No underground utilities were identified.

2.1.2 EXCAVATION OF IMPACTED SOIL

Closure activities began on January 24, 2001, with excavation of impacted soil from the sludge bed. Excavation was done with a front-end loader. Excavation proceeded by removing the soil containing visible asphalt as an indicator of impacted soil. Field samples were periodically collected from the bottom and sidewalls of the excavation and screened for hydrocarbon content using a PetroFLAG™ test kit. Additionally, the field samples with the highest PetroFLAG™ results were screened for head space analysis. The samples were placed into a sealed plastic bag and placed in the sun for 30 minutes. Head space was then analyzed using a photoionization detector with a lamp energy of 11.4 electron volts. The results of these analyses are provided in Section 4.0.

Digging stopped when the excavation reached the planned size of 15- by 15- by 3- m (50- by 50- by 10- ft). A total of approximately 869 cubic meters (m³) (1,136 cubic yards [yd³]) of hydrocarbons in soil was excavated. The soil was loaded directly into dump trucks and transported to the NTS Area 6 Hydrocarbon Landfill for disposal.

Even though the planned maximum size of the excavation was reached, not all of the asphalt was removed and some of the verification samples results were above the regulatory action level. Discussions were held with the NDEP and NNSA/NV to determine an appropriate course of action. In order to determine the lateral extent of the waste, additional verification samples were collected higher on the sidewalls than the original samples. Since the sidewalls were sloped, the

samples were collected further out from the center of the excavation. Additional discussion and verification sample results are provided in Section 4.0.

2.1.3 EXCAVATION OF CONSTRUCTION DEBRIS

Construction debris was uncovered during excavation activities. This debris consisted of plastic pipe and conduit, parking ballards, metal plates, barbed wire, wood, concrete, and metal strapping. This debris was loaded into a roll-off container and transported to the NTS Area 9 Construction Landfill for disposal. Approximately 7.6 m³ (10 yd³) of construction debris was disposed.

2.1.4 BEST MANAGEMENT PRACTICES

Since the remainder of the components associated with the Area 22 Sewage Lagoons Site were found to have COCs below the preliminary action levels, they did not require corrective action. However, best management practices were done at these areas to prevent or mitigate the accumulation of water or debris in the existing piping.

The eroded area at the buried Imhoff tank was backfilled with clean material and graded and the strainer box was filled with a cement/grout slurry (Figure 2). The manholes associated with the septic system were also filled with cement/grout slurry (Figure 3).

The sewage lagoons did not require corrective action.

2.1.5 DECONTAMINATION OF EQUIPMENT

All hand-held sampling equipment was decontaminated prior to being brought to the field. Soil sampling scoops were decontaminated using a laboratory-grade detergent solution and a de-ionized water rinse. Hand-held sampling equipment was used only once in the field, so that decontamination in the field was not required.

2.1.6 BACKFILLING AND REGRADING OF EXCAVATION

The backfilling operation was completed on April 25, 2001. All clean fill soil was obtained from a source in Area 6 of the NTS. The excavation was backfilled to existing grade, wheel-compacted using a front-end loader and water truck, and graded to minimize ponding of surface water. All remaining fencing and debris were removed and disposed. Photographs of closure activities are provided in Appendix A.

FIGURE 3
CAU 230/320 MANHOLE LOCATIONS

2.2 DEVIATIONS FROM THE CAP AS APPROVED

The following deviations occurred from the approved scope of work as outlined in the CAP (DOE/NV, 2000b):

- The site was clean closed by excavation and disposal. However, not all of the asphalt was removed from the sidewalls as proposed in the CAP. Based on sampling and analysis, it was determined that petroleum hydrocarbon waste in the soil was attributed to the asphalt and not a diesel fuel release. The NDEP recognized that the asphalt does not constitute a hazard to human health or the environment and has approved clean closure with no restrictions.
- The actual volume of generated waste varied from the planned volume. A total of 869 m³ (1,136 yd³) was disposed rather than the planned 512 m³ (670 yd³). The volume increased because more impacted soil than anticipated was found.
- Verification soil samples were collected in less locations than planned. The CAP (DOE/NV, 2000b) proposed collecting 45 verification samples. This was based on the excavation being divided into 3-m (10-ft) grids and collecting a sample from every grid. Instead, a random number generator was used to select five cells from the bottom and two cells from each of the four walls of the excavation. This resulted in the collection of 15 verification samples, including two duplicates. An additional set of 13 verification samples (including one duplicate) was also collected to further define the extent of the impacted soil. Therefore, a total of 28 verification samples was collected. A detailed discussion is presented in Section 4.0. Two technical changes were submitted after verbal approval was granted by the NDEP to conduct the work. The technical changes are provided in Appendix D.
- Twenty-three of the twenty-four manholes associated with the septic system were filled with cement/grout slurry. Manhole Number 16 was not filled because it could not be located. The apparent location of the manhole is near the intersection of the present day Desert Rock Airport Access Road and the historic Camp Desert Rock Road (Figure 3). Therefore, it is likely that the manhole was graded over or removed entirely during road construction.
- A JHA was used for the safety documentation rather than a Site-Specific Health and Safety Plan. After the CAP was approved, it was determined that based on the low levels of TPH as diesel present at the site, there was minimal risk to workers from exposure to diesel. Therefore, only a JHA was required.
- Excavated construction debris was disposed in the NTS Area 9 Construction landfill rather than the NTS Area 6 Hydrocarbon landfill as stated in the CAP. Since the petroleum hydrocarbons are asphalt-related, disposal of this debris in the Area 9 Construction landfill was appropriate.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

The corrective action field activities began on January 24, 2001, and were completed on April 25, 2001. A corrective action schedule as completed is provided in Figure 4.

2.4 SITE PLAN/SURVEY PLAT

Because this is a clean closure, survey data are not required for this closure. Because engineered construction was not required as part of this closure, as-built drawings are not included in this CR.

FIGURE 4 - CLOSURE SCHEDULE AS COMPLETED

3.0 WASTE DISPOSITION

Wastes generated during the closure of CAU 230/320 were disposed as follows:

Approximately 869 m³ (1,136 yd³) of asphalt-impacted soil was disposed in the NTS Area 6 Hydrocarbon Landfill.

Construction debris, including plastic pipe and conduit, parking ballards, metal plates, barbed wire, wood, concrete, and metal strapping, was disposed in the Area 9 Construction Landfill. Sanitary trash was disposed in the Area 23 Landfill.

Waste disposal activities were completed on March 21, 2001.

Waste disposition records are provided in Appendix C.

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4.0 CLOSURE VERIFICATION RESULTS

Verification sampling was done on March 13 and April 9, 2001 following Section 2.4 of the CAP (DOE/NV, 2000b). The laboratory data packages are provided in Appendix D.

4.1 DATA QUALITY ASSESSMENT

A verification program needs to contain the following three elements:

- The verification program must support the field decision that any remaining COCs are less than remediation standards (i.e., when has all of the contamination been remediated).
- The verification program must include a sufficient number of samples to adequately assess the completeness of the remedial action (i.e., is the site really clean).
- Does the verification analytical data collected, meet the quality requirements specified in the DQO.

The following sections discuss the results of the QA/QC data for CAU 230/320 corrective action sampling. Accuracy, precision, representativeness, completeness, and comparability are used in the DQO process to measure quality control and are presented below.

4.1.1 ACCURACY

Accuracy is the closeness of a measurement or the mean of a set of results to the true value. Accuracy is a measure of the bias of the measurement system. Indicators for measurement are based on the percent recoveries associated the laboratory analytical control spikes, surrogate spikes, or matrix spikes. Accuracy is then determined by calculation of the percent recovery (%R) which is the amount recovered divided by the actual amount added times 100 percent.

In addition there are legal requirements involved in accuracy. Samples must be collected at the correct locations with carefully recorded dates and times. This is done through the use of a chain of custody form with custody tape attached to prevent tampering. The chain of custody form follows the samples to the contract laboratory to prove samples were not tampered with and to show that the required hold times were not exceeded. The temperature inside the ice chest used to ship samples must be maintained at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. This is checked before shipment and upon receipt by the contract laboratory.

All samples collected for this project were properly collected and sent to the contract laboratory as described in the Corrective Action Plan.

4.1.2 PRECISION

Precision is a measurement which represents the repeatability of the analytical system. Indicators for measurement are based on field duplicates, laboratory splits, or laboratory replicate analysis. It is usually expressed as the relative percent difference (RPD) or standard deviation. Three blind replicates were collected as described in the Corrective Action Plan.

4.1.3 REPRESENTATIVENESS

Representativeness is a qualitative judgement which refers to a sample or group of samples that reflect the characteristics of the media at the sampling point. It also includes how well the sampling point represents the actual parameter variations which are under study.

For CAU 230/320 professional judgement, process knowledge, and historical knowledge were used to set the number of samples needed to sufficiently determine that the site was cleaned of hydrocarbons. The closure of CAU 230/320 was complicated by the presences of large quantities of asphalt within the debris that had been backfilled in the sludge bed. The presence of asphalt within the verification samples required an expansion of the planned excavation to get outside of the asphalt impacted soil. Asphalt contains TPH constituents and when analyzed following EPA method 8015 modified, elevated TPH results were obtained. The presence of asphalt within the March 13, 2001 verification samples resulted in extending the excavation and collection of additional samples on April 9, 2001.

4.1.4 COMPLETENESS

Indicators for this measurement is the amount of valid data obtained from a measurement system compared to the amount that was expected and needed to be obtained to meet the project data goals.

All samples collected for this project had acceptable QA/QC. In addition, all hold times were met, giving this project a 100 percent completeness.

4.1.5 COMPARABILITY

Comparability is a qualitative judgement which expresses the confidence with which one data set can be compared to another. Items used to determine comparability include the analytical method and reporting units. Standardized methods for collection of environmental samples were used to perform sampling. Samples were analyzed for TPH using the standard method (8015 modified). This allows the data to be compared to other results obtained for other projects or over time.

4.1.6 DATA EVALUATION

Laboratory data obtained for CAU 230/320 have been evaluated for data quality. Data was evaluated using the following criteria:

- Chain of custody is complete and legible.
- Cover letter (case narrative) reviewed for significant problems.
- All requested analyses were performed on all samples.
- Holding times are not beyond specified standards.
- Note cooler temperature on cooler is not above 6 degrees Celsius.
- Was the proper preservation and pH for each Matrix used?
- Check the laboratory log-in report for completeness and errors.
- All field forms are present and complete.
- Report forms inventory includes all CLP or CLP-like forms.
- Reporting values are at the appropriate level.

4.1.7 QUALITY CONTROL SAMPLES

Three duplicates and one equipment blank were collected and sent "blind" to the contract laboratory.

4.1.8 LABORATORY QUALITY CONTROL SAMPLES

Each sample delivery group (SDG) has a matrix spike/matrix spike duplicate (MS/MSD), laboratory control spike/laboratory control spike duplicate (LCS/LCSD), and method blank. A surrogate spike was also added to each sample. This data was used to qualify the associated sample results.

Surrogates check each environmental sample to determine if the extraction and analysis procedure was performed correctly and if the instrumentation is operating as expected.

Surrogates are compounds which are highly unlikely to be present in the environment, but have been determined to be similar in behavior to the COCs. The surrogate is added before extraction is started, and the amount recovered is used to calculate percent recovery.

The acceptable range for surrogate recovery is determined by each laboratory. For TPH analysis the laboratory is not required to reanalyze the sample. The laboratory is only required to report the acceptable range and percent recovery.

4.2 FIELD SAMPLE ANALYSES

All samples were collected with decontaminated stainless steel sampling scoops and placed in appropriate sample containers. All samples were labeled with a unique sample number, placed on ice in coolers, and transported under chain-of-custody to Environmental Technical Services in Mercury, Nevada for shipment to an off-site laboratory.

Samples were numbered using the following nomenclature:

320SB-1

Where:

- 320 is the CAU number.
- SB is the site location (Sludge Bed).
- 1 is the sample number.

During excavation, field samples of the soil were collected and screened for hydrocarbon content using a PetroFLAG™ test kit. The results are provided in Table 1. In addition, the field samples with the highest PetroFLAG™ results were screened for head space analysis. The samples were placed into a sealed plastic bag and placed in the sun for 30 minutes. Head space was then analyzed using a photoionization detector with a lamp energy of 11.4 electron volts. The result of these analyses was 0.0 parts per million (ppm).

4.3 VERIFICATION SAMPLE ANALYSES

A total of 15 verification soil samples were collected on March 13, 2001. These samples were analyzed for full scan TPH because of the concern that the elevated PetroFLAG™ results may have been due to a diesel fuel spill rather than from the asphalt. Verification soil samples were collected from the sidewalls and floor of the excavation approximately every 1.5 m (5 ft).

TABLE 1 - PETROFLAG™ SAMPLE RESULTS

SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH (ft)^A	RESULT (ppm)^B
PF1-1	Southeast Corner Bottom	7	59
PF1-2	Southwest Corner Bottom	7	192
PF1-3	Bottom Center	7	148
PF1-4*	Northeast Corner Bottom	7	1596
PF1-5*	Northwest Corner Bottom	7	1058
PF1-6	South Sidewall (East)	5	454
PF1-7	South Sidewall (West)	5	54
PF1-8	West Sidewall (South)	5	384
PF1-9	West Sidewall (North)	5	131
PF1-10*	North Sidewall (West)	5	1022
PF1-11	North Sidewall (East)	5	218
PF1-12*	East Sidewall (North)	5	2073
PF1-13	East Sidewall (South)	5	132

TABLE 1 (Continued) - PETROFLAG™ SAMPLE RESULTS

SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH (ft)	RESULT (ppm)
PF2-1	Northeast Corner Bottom	10	164
PF2-2	Northwest Corner Bottom	9	40
PF2-3	Southwest Corner Bottom	8	61
PF2-4	Southeast Corner Bottom	9	84
PF3-1	Southeast Corner Bottom	10	180
PF3-2	Southwest Corner Bottom	10	53
PF3-3	Center Bottom	10	53
PF3-4	Northeast Corner Bottom	10	21
PF3-5	Northwest Corner Bottom	10	26
PF3-6	South Sidewall (East)	3	614
PF3-7	South Sidewall (West)	3	0
PF3-8	West Sidewall (South)	3	1017
PF3-9	West Sidewall (North)	3	200

TABLE 1 (Continued) - PETROFLAG™ SAMPLE RESULTS

SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH (ft)	RESULT (ppm)
PF3-10	North Sidewall (West)	3	426
PF3-11	North Sidewall (East)	3	168
PF3-12	East Sidewall (North)	3	720
PF3-13	East Sidewall (South)	3	1293

A - feet

B - parts per million

* - samples were also analyzed for head space using a PID

An additional 13 verification soil samples were collected on April 9, 2001. These samples were collected to comply with a request from the NDEP to determine the lateral extent of the hydrocarbon-impacted soil (Gustafson, 2001). These samples were analyzed for TPH as diesel. In addition, two samples of asphalt were collected and analyzed for TPH as diesel. The chromatograms from the asphalt samples were compared to the chromatograms of the soil samples to determine if the waste in the soil was related to asphalt or a diesel fuel spill. The comparison of the chromatograms indicated that the soil waste was asphalt-related. The laboratory data packages for all samples, including the chromatograms, are provided in Appendix D. Sample locations are provided in Figure 5. Results are shown in Tables 2 and 3.

4.4 USE RESTRICTION

A clean closure was performed at this CAS. Land use is unrestricted. Because the CAU has been clean closed, a Post-Closure Plan is not necessary.

Samples collected 3/13/2001. Results are in milligrams per kilogram (mg/kg).
 ND = Non-detect. Squares with two results indicate duplicate sample.

- Locations of samples collected 4/9/2001. Results were all non-detect for TPH diesel. Squares with two • indicates duplicate sample.

FIGURE 5
 CAU 230/320 SLUDGE BED SAMPLE RESULTS

TABLE 2 - VERIFICATION SAMPLE RESULTS - MARCH 13, 2001

SAMPLE ID	SAMPLE LOCATION	TPH GASOLINE (mg/kg) ^{A, B}	TPH DIESEL/OIL(mg/kg) ^B
320SB-1	Bottom Grid 1	<0.25	180
320SB-2	Bottom Grid 11	<0.25	<20
320SB-3	Bottom Grid 13	<0.25	63
320SB-4	Bottom Grid 13	<0.25	<20
320SB-5	Bottom Grid 20	<0.25	<20
320SB-6	Bottom Grid 22	<0.25	<20
320SB-7	North Sidewall Grid 2	<0.25	60
320SB-8	North Sidewall Grid 3	<0.25	210
320SB-9	East Sidewall Grid 2	<0.25	320
320SB-10	East Sidewall Grid 4	<0.25	390
320SB-11	South Sidewall Grid 3	<0.25	<20
320SB-12	South Sidewall Grid 5	<0.25	<20
320SB-13	West Sidewall Grid 1	<0.25	260
320SB-14	West Sidewall Grid 4	<0.25	<20
320SB-15	West Sidewall Grid 4	<0.25	<20

A - milligrams per kilogram

B - The NDEP action level for petroleum hydrocarbons is 100 mg/kg (NAC, 1996)

Refer to Figure 5 for sample locations and Appendix D for Laboratory Data Reports

TABLE 3 - VERIFICATION SAMPLE RESULTS - APRIL 9, 2001

SAMPLE ID	SAMPLE LOCATION	TPH DIESEL (mg/kg) ^{A, B}
320SB-16	Bottom Grid 6	<10
320SB-17	Bottom Grid 16	<10
320SB-18	North Sidewall Grid 3	<10
320SB-19	North Sidewall Grid 4	<10
320SB-20	East Sidewall Grid 1	<10
320SB-21	East Sidewall Grid 2	<10
320SB-22	East Sidewall Grid 3	<10
320SB-23	East Sidewall Grid 3	<10
320SB-24	East Sidewall Grid 4	<10
320SB-25	South Sidewall Grid 2	<10
320SB-26	West Sidewall Grid 1	<10
320SB-27	West Sidewall Grid 2	<10
320SB-28	West Sidewall Grid 5	<10

A - milligrams per kilogram

B - The NDEP action level for petroleum hydrocarbons is 100 mg/kg (NAC, 1996)

Refer to Figure 5 for sample locations and Appendix D for Laboratory Data Reports

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5.0 CONCLUSIONS

CAU 230, Area 22 Sewage Lagoons and CAU 320 Area 22 Desert Rock Airport Strainer Box, include CAS 22-99-01 (Sludge Bed and buried Imhoff tank). The Sludge Bed area was excavated and found to contain asphalt-impacted soil and construction debris. Most of the asphalt-impacted soil was excavated and disposed in the NTS Area 6 Hydrocarbon Landfill. Approval was granted by the NDEP to leave some asphalt in the Sludge Bed because it was determined that impacted soil was related to the asphalt and not a diesel fuel spill. The asphalt and asphalt-impacted soil was disposed in the NTS Area 6 Hydrocarbon Landfill and the construction debris was disposed in the NTS Area 9 Construction Landfill. The excavation was backfilled with clean soil, wheel-compacted, and graded. The eroded area around the buried Imhoff tank was backfilled and graded. The Strainer box and manholes were filled with cement/grout slurry. Verification samples were collected and the analytical results indicated that the extent of the impacted soil was defined and was related to the asphalt. All fencing around the Sludge Bed and Imhoff tank area was removed.

Closure was accomplished in accordance with the approved CAP (DOE/NV, 2000b). Verification sample data demonstrate that all COCs were removed to the remediation standards. Therefore, the site is clean-closed.

5.1 CLOSURE PETITION

This closure was completed following the approved CAP (DOE/NV, 2000b). Based on the completion of site closure activities, the NNSA/NV requests that a Notice of Completion be issued by the NDEP for CAU 230, Area 22 Sewage Lagoons and CAU 320 Area 22 Desert Rock Airport Strainer Box, and that CAU 230/320 be moved from Appendix III to Appendix IV of the FFACO, "Closed Corrective Action Units."

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6.0 REFERENCES

BN, see Bechtel Nevada.

Bechtel Nevada, 2000, Field Management Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action Unit 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, Las Vegas, NV.

DOE/NV, see U.S. Department of Energy, Nevada Operations Office.

FFACO, see Federal Facility Agreement and Consent Order.

Federal Facility Agreement and Consent Order. 1996 (as amended). Agreed to by the State of Nevada, the U.S. Department of Energy, and the U.S. Department of Defense.

Gustafson, Dennis. 2001. E-mail to Sabine Curtis, April 4.

NAC, see Nevada Administrative Code.

Nevada Administrative Code, 1996, NAC 445A.2272, "Contamination of soil: Establishment of action levels." As adopted by the Nevada Environmental Commission, September, Carson City, NV.

U.S. Department of Energy, Nevada Operations Office, 1999, Corrective Action Investigation Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-552, Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office, 2000a, Corrective Action Decision Document for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-601, Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office, 2000b, Corrective Action Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action Unit 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-655, Las Vegas, NV.

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APPENDIX A

**PHOTOGRAPHS OF
CLOSURE ACTIVITIES**

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6.0 REFERENCES

BN, see Bechtel Nevada.

Bechtel Nevada, 2000, Field Management Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action Unit 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, Las Vegas, NV.

DOE/NV, see U.S. Department of Energy, Nevada Operations Office.

FFACO, see Federal Facility Agreement and Consent Order.

Federal Facility Agreement and Consent Order. 1996 (as amended). Agreed to by the State of Nevada, the U.S. Department of Energy, and the U.S. Department of Defense.

Gustafson, Dennis. 2001. E-mail to Sabine Curtis, April 4.

NAC, see Nevada Administrative Code.

Nevada Administrative Code, 1996, NAC 445A.2272, "Contamination of soil: Establishment of action levels." As adopted by the Nevada Environmental Commission, September, Carson City, NV.

U.S. Department of Energy, Nevada Operations Office, 1999, Corrective Action Investigation Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-552, Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office, 2000a, Corrective Action Decision Document for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-601, Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office, 2000b, Corrective Action Plan for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action Unit 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada, DOE/NV-655, Las Vegas,

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APPENDIX A

**PHOTOGRAPHS OF
CLOSURE ACTIVITIES**

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BEST MANAGEMENT PRACTICES
CLOSURE OF IMHOFF TANK (AFTER)

BEFORE

AFTER

BEST MANAGEMENT PRACTICES - CLOSURE OF STRAINER BOX

BEFORE

AFTER

BEST MANAGEMENT PRACTICES
CLOSURE OF MANHOLE (TYPICAL)

AFTER EXCAVATION

AFTER BACKFILLING AND GRADING

SLUDGE BED REMEDIATION

APPENDIX B

RECORDS OF TECHNICAL CHANGE

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RECORD OF TECHNICAL CHANGE

Technical Change No. 1Page 1 of 1Project/Job No. WBS 10401030419Date 1/30/01Project/Job Name CAU 230/320, Area 22 Sewage Lagoons and DRA Strainer Box

The following technical changes (including justification) are requested by:

Dennis GustafsonTask Manager

(Name)

(Title)

The project time will be Unchanged..

Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 230/320, Area 22
Sewage Lagoons and DRA Strainer Box, Nevada Test Site, Nevada

Approved By:

Janet Appenzeller-Wing
Janet Appenzeller-Wing, Project Manager
Industrial Sites Project

Date

2/12/01

Rumore C. Wycoff
Rumore C. Wycoff, Division Director
Environmental Restoration Division

Date

2/12/01Client Notified Yes ☒ No ☐ Date _____NDEP Concurrence Yes ☒ No ☐ Date _____Contract Change Order Required Yes ☐ No ☐ _____

Contract Change Order No. _____

Technical Change No. 1Page 2 of 2Project/Job No. WBS 10401030419Date 1/30/01Project/Job Name CAU 230/320: Area 22 Sewage Lagoons and DRA Strainer Box

Site Characterization results from the sludge-bed area reported three samples having total petroleum hydrocarbons (TPH) as diesel-range organics at concentrations ranging from 150 milligrams per kilogram to 580 milligrams per kilogram. Excavation of the sludge-bed area has resulted in removal of construction debris and asphalt. During excavation activities, no soil staining, odor, or discoloration was observed. In addition, screening using a photoionization detector (PID) did not indicate the presence of any petroleum hydrocarbon discharge in this area.

For the purpose of verification sampling, the bottom and side slopes of the excavation will be divided into grids. The bottom of the excavation will be divided into 10 foot by 10 foot cells. The grid system will create 25 cells in the bottom of the excavation, each labeled using a grid coordinate system that will be created in the field. A random number generator (or table) will be used to select 5 of the cells. A surface soil sample will be collected from the center of each of the 5 cells and analyzed for TPH as diesel.

The side slopes of the excavation will be subdivided in plan view into 10 foot by 10 foot cells. The grid system will provide a total of 24 cells around the perimeter of the excavation, each labeled using a grid system that will be created in the field. A random number generator (or table) will be used to select 2 of the cells from each of the four side slopes. A surface soil sample will be collected from the center of each of the 2 cells and analyzed for TPH as diesel.

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RECORD OF TECHNICAL CHANGE

Technical Change No. 1Page 1 of 1Project/Job No. WBS 10401030419Date 1/30/01Project/Job Name CAU 230/320 Area 22 Sewage Lagoons and DRA Strainer Box

The following technical changes (including justification) are requested by:

Dennis Gustafson

(Name)

Task Manager

(Title)

The project time will be Unchanged.Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 230/320, Area 22 Sewage Lagoons and DRA Strainer Box, Nevada Test Site, Nevada

Approved By:

Janet Appeneller-Wing
Janet Appeneller-Wing, Project Manager
Industrial Sites ProjectDate 2/12/01Russell C. Wysocki
Russell C. Wysocki, Division Director
Environmental Restoration DivisionDate 2/12/01Client Notified Yes ☐ No ☐ DateNDEP Concurrence Yes ☒ No ☐ Date Michael [Signature] 3/6/01Contract Change Order Required Yes ☐ No ☐

Contract Change Order No. _____

RECORD OF TECHNICAL CHANGE

Technical Change No. 2Page 1 of 2Project/Job No. WBS 10401030419Date 04/16/2001Project/Job Name CAU 230/320, Area 22 Sewage Lagoons and DRA Strainer Box

The following technical changes (including justification) are requested by:

<u>Dennis Gustafson</u>	<u>Task Manager</u>
(Name)	(Title)

The project time will be Unchanged..

Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 230/320, Area 22
Sewage Lagoons and DRA Strainer Box, Nevada Test Site, Nevada

Approved By:

Sabine Antis
for Janet Appenzeller-Wing, Project Manager
Industrial Sites Project

Date 4-16-01

Robert M. Bangerter Jr.
for Runore C. Wycoff, Division Director
Environmental Restoration Division

Date 4/16/01Client Notified Yes ☐ No ☐ Date _____NDEP Concurrence Yes ☐ No ☐ Date _____Contract Change Order Required Yes ☐ No ☐ _____

Contract Change Order No. _____

UNCONTROLLED

RECORD OF TECHNICAL CHANGE

Technical Change No. 2Page 1 of 2Project/Job No. WBS 10401030419Date 04/16/2001Project/Job Name CAU 230/320, Area 22 Sewage Lagoons and DRA Strainer Box

The following technical changes (including justification) are requested by:

Dennis GustafsonTask Manager

(Name)

(Title)

The project time will be Unchanged..Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 230/320, Area 22 Sewage Lagoons and DRA Strainer Box, Nevada Test Site, NevadaApproved By: J. Appenzeller-WingDate 4-16-01J. Appenzeller-Wing, Project Manager
Industrial Sites ProjectRobert M. Bangerter Jr. Date 4/16/01
for Robert C. Wycoff, Division Director
Environmental Restoration DivisionClient Notified Yes ☐ No ☐ Date _____NDEP Concurrence Yes ☒ No ☐ Date Michael S. RPK 4/17/01Contract Change Order Required Yes ☐ No ☐

Contract Change Order No. _____

Technical Change No. 2Page 2 of 2Project/Job No. WBS 10401030419Date 04/16/2001Project/Job Name CAU 230/320, Area 22 Sewage Lagoons and DRA Strainer Box

Site characterization results from the sludge bed area reported three samples having total petroleum hydrocarbon (TPH) as diesel-range organics at concentrations ranging from 150 milligrams per kilogram (mg/kg) to 580 mg/kg. Excavation of the sludge bed area has resulted in the removal of construction debris and asphalt. During excavation activities no soil staining, odor, or discoloration was identified. In addition, screening using a photoionization detector (PID) did not indicate the presence of any petroleum hydrocarbon discharge in this area.

Fifteen soil verification samples were collected on March 13, 2001. Laboratory analysis showed that 5 of the soil samples had concentrations of TPH as diesel range organics above the regulatory limit of 100 mg/kg.

Following an April 3, 2001 site visit with the Nevada Division of Environmental Protection, 13 additional soil verification samples were collected on April 9, 2001 to define the limits of the waste in the sludge bed area. Two of the samples were taken from the floor of the excavation. Eleven samples were taken higher on the sidewalls of the excavation than the original samples. Since the sidewalls are sloped this resulted in the samples being collected at a greater distance from the center of the excavated area.

Laboratory results showed that all 13 samples are below the MDL of 10 mg/kg for diesel range organics as petroleum hydrocarbons. Two asphalt samples were also collected and analyzed for TPH as diesel range organics. The chromatograms from the asphalt samples were compared with the chromatograms from the original verification soil samples collected on March 13, 2001 that had TPH as diesel range organics above the regulatory limits of 100 mg/kg. The comparison of the chromatograms by an analytical chemist show that the TPH as diesel range organics seen in the soil verification samples is related to the asphalt that was disposed in the sludge bed area and not diesel. The sludge bed area will be backfilled with clean soil and the site will be clean closed with no administrative controls.

Gustafson, Dennis

From: Gustafson, Dennis
Sent: Wednesday, April 04, 2001 3:14 PM
To: Curtis Sabine
Cc: Nacht, Steve; Johnson, Wayne; Appenzeller-Wing Janet
Subject: CAU 230/320

Sabine,

Per our phone conversation, myself, Steve Nacht, and Greg Raab from NDEP did a site visit this morning at CAU 230/320. Mr. Raab stated that he did not feel that the lateral extent of contamination has yet been determined. We talked about the small fragments of asphalt that is still present in the side walls and that we believe that the TPH that we are seeing in the verification samples is associated with this asphalt. Mr. Raab suggested that we perform additional soil sampling using the PetroFlag field screening higher on the sidewalls which would be a greater distance from the current bottom of the excavation. He said that if these show less than the regulatory limit of 100 mg/kg then the extent of the waste has been defined and we would not be required to do additional excavation. He also requested documentation that asphalt contains diesel range organics similar to those that we have seen in the verification samples. We have identified an additional 12 sample locations. We will perform PetroFlag analysis at each of the 12 locations and also send the samples to the lab for TPH diesel range organics analysis. I am not sure if the NDEP would call this a clean closure since we would provide supporting documentation that the constituent of concern is only asphalt or if it would be approved as a closure in place with use restrictions. You may want to discuss the above scope with the NDEP and get their final concurrence before we sample and also clarify if this would be a clean closure or not.

If you concur with this path forward please let me know and we will perform the sampling tomorrow. If you have any questions please contact Steve Nacht at 5-7234 since I will be out of the office until Monday or I can be reached by pager at 794-6497.

Thanks,
Dennis

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APPENDIX C

WASTE DISPOSITION DOCUMENTATION

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Solid Waste Operations
Solid Waste Received Between 21-MAR-2001 and 21-MAR-2001
Sorted by Landfill ID, Receipt Date

Prepared on 26-MAR-2001

Page 1 of 2

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 23	21-MAR-2001	NTS	5,800	23	190
	Comments: Plastic, wood, paper, soil, rocks, cement and concrete.				
	21-MAR-2001	PUTRESCIBLE	780	23	&CP CAF
	Comments:				
Total for AREA 23			6,580 Pounds		
			3.29 Tons		
AREA 6	21-MAR-2001	NTS	8,000	06	6-800
	Comments: Soil.				
Total for AREA 6			8,000 Pounds		
			4 Tons		
AREA 9	21-MAR-2001	NTS	12,800	03	3C-26
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	FFACO-ONSITE	8,180	22	CAU
	Comments: CAU 230/320 - Asphalt, plastic, metal, wire, wood, cable, cement and concrete.				
	21-MAR-2001	NTS	16,500	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	14,600	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	24,900	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	19,200	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	23,260	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	32,000	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	21,330	03	3C-45
	Comments: Mfg.items, demolition debris.				
	21-MAR-2001	NTS	19,630	03	3C-45
	Comments: Mfg.items, demolition debris.				

LANDFILL DAILY ACCESS REGISTER

DATE: 3/21/01

(check one) ☒ Area 9 - U10c

☐ Area 6 Hydrocarbon

☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-3	C	T	12,800	8:35	8:45	PARKS, SALLY
BN	A-23 Sewage Lagoons	C	11006	8,180	9:15	9:35	Kaczay, K
BN	A-3	C	II	10,500	9:30	9:40	Don Burns
BN	A-3	C	III	15,600	9:45	10:00	PARKS, S.
BN	A-3	C	IV	24,900	10:30	10:50	Don Burns
BN	A-3	C	V	19,200	10:40	10:50	PARKS, S.
BN	A-3	C	VI	23,260	10:30	10:40	Don Burns
BN	A-3	C	VII	32,000	11:25	11:45	HULL, P.
BN	A-3	C	VIII	21,330	12:45	1:00	PARKS, S.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair / evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

Solid Waste Operations
Solid Waste Received Between 23-JAN-2001 and 13-FEB-2001
Sorted by Landfill ID, Receipt Date

Prepared on 27-MAR-2001

Page 2 of 7

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 23	24-JAN-2001	PUTRESCIBLE	360	06	CAFE
	Comments:				
	24-JAN-2001	NON-PUTRESCIBLE	21,360	NTS	ALL
	Comments:				
	23-JAN-2001	PUTRESCIBLE	620	23	&CP CAF
Comments:					
Total for AREA 23			89,060 Pounds 44.53 Tons		
AREA 6	12-FEB-2001	FFACO-ONSITE	50,720	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	54,980	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	63,940	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	52,940	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	53,420	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	59,660	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	12-FEB-2001	FFACO-ONSITE	57,480	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320				
08-FEB-2001	FFACO-ONSITE	52,040	22	CAU'S	
Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.					
08-FEB-2001	FFACO-ONSITE	53,060	22	CAU'S	
Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.					
08-FEB-2001	FFACO-ONSITE	59,260	22	CAU'S	
Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.					
08-FEB-2001	FFACO-ONSITE	53,800	22	CAU'S	
Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.					
Total for AREA 6			4,230,060 Pounds 2,115.03 Tons		

Solid Waste Operations
Solid Waste Received Between 23-JAN-2001 and 13-FEB-2001
Sorted by Landfill ID, Receipt Date

Prepared on 27-MAR-2001

Page 3 of 7

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 6	08-FEB-2001	FFACO-ONSITE	53,660	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	08-FEB-2001	FFACO-ONSITE	54,800	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	08-FEB-2001	FFACO-ONSITE	52,600	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	61,480	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320				
	06-FEB-2001	FFACO-ONSITE	45,180	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	51,460	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	47,580	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	59,920	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	57,140	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	59,060	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	06-FEB-2001	FFACO-ONSITE	67,260	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	64,120	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	55,400	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	56,320	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	57,660	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	55,480	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				

Solid Waste Operations
Solid Waste Received Between 23-JAN-2001 and 13-FEB-2001
Sorted by Landfill ID, Receipt Date

Prepared on 27-MAR-2001

Page 4 of 7

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 6	31-JAN-2001	FFACO-ONSITE	62,020	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	61,800	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	55,920	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	31-JAN-2001	FFACO-ONSITE	56,980	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	56,760	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	66,260	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	57,800	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	65,920	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	56,880	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	62,380	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	61,660	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	56,820	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	56,680	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	55,760	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	66,620	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	30-JAN-2001	FFACO-ONSITE	59,580	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				

Solid Waste Operations
Solid Waste Received Between 23-JAN-2001 and 13-FEB-2001
Sorted by Landfill ID, Receipt Date

Prepared on 27-MAR-2001

Page 5 of 7

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 6	29-JAN-2001	FFACO-ONSITE	57,060	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	65,060	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	64,140	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	29-JAN-2001	NTS	16,000	23	750
	Comments: Mfg. Items, soil, sludge from East End of Bldg. 750.				
	29-JAN-2001	FFACO-ONSITE	63,240	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	63,420	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	65,400	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	63,780	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	58,480	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	63,440	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	62,620	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	57,000	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	29-JAN-2001	FFACO-ONSITE	55,580	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	59,900	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	62,720	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	62,820	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				

Solid Waste Operations
Solid Waste Received Between 23-JAN-2001 and 13-FEB-2001
Sorted by Landfill ID, Receipt Date

Prepared on 27-MAR-2001

Page 6 of 7

Landfill Id	Date of Receipt	Type of Waste	Weight in Pounds	Origin of Waste Area No. Building No.	
AREA 6	25-JAN-2001	FFACO-ONSITE	66,360	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	66,700	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	64,280	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	63,400	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	55,560	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	64,860	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	61,560	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
AREA 9	25-JAN-2001	FFACO-ONSITE	60,980	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, wire, metal, CAU 230/320.				
	25-JAN-2001	FFACO-ONSITE	63,500	22	CAU'S
	Comments: Hydrocarbon soil, asphalt, metal, wire, CAU 230/320.				
	24-JAN-2001	NTS	58,880	22	CAU'S
	Comments: Hydrocarbons, asphalt, metal, wire. CAU 230/320.				
	24-JAN-2001	NTS	66,300	22	CAU'S
	Comments: Hydrocarbons, asphalt, metal, wire. CAU 230/320.				
	24-JAN-2001	NTS	60,320	22	CAU'S
	Comments: Hydrocarbons, asphalt, metal, wire. CAU 230/320.				
	24-JAN-2001	NTS	66,440	22	CAU'S
	Comments: Hydrocarbons, asphalt, metal, wire. CAU 230/320.				
	08-FEB-2001	NTS	35,040	25	YMP
	Comments: Wood, wool, cement and concrete.				
	05-FEB-2001	NTS	22,000	25	RMAD
	Comments: Non-asbestosform insulation.				

Total for AREA 9

205,760 Pounds

CS 1/25/01

Re. Kew
2/15/01

DATE: 1-24-2001

(check one)

☐ Area 9 - U10c☒ Area 6 Hydrocarbon☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B/N	A-22	H	10835	58,880	11:00	11:10	L. Gray, D.A.
B/N	A-22	H	10836	66,700	11:00	11:15	J. H.
B/N	A-22	H	10837	66,440	11:05	11:15	W. J. B. H.
B/N	A-22	H	10840	60,320	11:05	11:10	Reiss J.A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFAO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☒ No ☐ YesDoes cover need repair /
evidence of settling? ☒ No ☐ YesDoes fence need repair? ☒ No ☐ YesDoes road(s) need repair? ☒ No ☐ YesHas litter accumulated? ☒ No ☐ YesHas water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

Water on west side 50'x50'x2"

INSPECTED BY: *[Signature]* 1-24-2001

Random Load Inspection:

Ticket Number: 10840

☒ No prohibited waste was found☐ Yes, the prohibited waste(s) identified below were found.☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).☐ Hazardous waste per NAC 444.580☐ PCB waste regulated by TSCA☐ Waste containing free liquids☐ TSCA-regulated☐ Waste failing the "no added radioactivity" per the POC requirement.☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY: *[Signature]* 1-24-2001
[Signature]
1/24/2001
14/20

LANDFILL DAILY ACCESS REGISTER

09/29/01

2/12/01

DATE: 10-25-2001

(check one)

☐ Area 9 - U10c

☒ Area 6 Hydrocarbon

☐ Area 23 Landfill

WASTE GENERATOR - Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-22	H	10847	59900	8:30	8:45	Lory DA
BN	A-22	H	10848	61560	8:30	8:47	Guerrero, Antonio
BN	A-22	H	10843	64860	8:30	8:50	W. J. Bohmre
BN	A-22	H	10845	63500	8:30	8:40	Ross J. N.
BN	A-22	H	10851	60980	13:40	13:45	Lory DA
BN	A-22	H	10852	55,560	1:45	1:50	Bohmre WT
BN	A-22	H	10854	62720	2:10	2:15	Guerrero, Antonio
BN	A-22	H	10859	63400	2:10	2:15	Ross J. N.
BN	A-22	H	10860	62820	15:40	15:50	Lory DA

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☒ No ☐ Yes
- Does cover need repair / evidence of settling? ☒ No ☐ Yes
- Does fence need repair? ☒ No ☐ Yes
- Does road(s) need repair? ☒ No ☐ Yes
- Has litter accumulated? ☒ No ☐ Yes
- Has water accumulated? ☒ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

10-25-2001
8:00

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

09/29/01

DATE: 1/25/01

(check one)

☐ Area 9 - U10c

☒ Area 6 Hydrocarbon

☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A 22	H.	10862	66700	4:00	4:10	Rose J. A
P/N	A 22	H	10864	66360	4:15	4:20	V. L. A. A. A. A.
B.N.	A-27	H	10865	64280	4:21	4:24	W. L. A. A. A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☒ No ☐ Yes
- Does cover need repair /
evidence of settling? ☒ No ☐ Yes
- Does fence need repair? ☒ No ☐ Yes
- Does road(s) need repair? ☒ No ☐ Yes
- Has litter accumulated? ☒ No ☐ Yes
- Has water accumulated? ☒ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

Random Load Inspection:

Ticket Number: 1

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY
(date/time):

1-25-01

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

11/30/01

DATE: 1-29-2001

(check one)

☐ Area 9 - U10c

☒ Area 6 Hydrocarbon

☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A-22	H	10870	57060	9:35	9:40	Ashmore W.T.
B.N.	A-22	H	10860	55580	9:35	9:40	Loay DA
B/N	A-22	H	10869	57000	9:40	9:45	Cherryman Valente
B.N.	A-22	H	10871	65060	10:00	10:10	Ross J.A.
B.N. DPR	A-23/750	H	II	16000	10:10		CARTAGE UCI
B.N.	A-22	H	10874	64140	11:35	11:45	Loay DA
B/N	A-22	H	10875	62620	11:45	11:55	V.O. Guerrero
B.N.	A-22	H	10876	63440	11:45	11:50	Ashmore W.T.
B.N.	A-22	H	10877	58480	11:50	11:55	Ross J.A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair /
evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

05/30/01

DATE: 1-29-2001

(check one)

☐ Area 9 - U10c

☒ Area 6 Hydrocarbon

☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN	A-22	H	10878	63780	14:50	15:00	Loay DA
B/N	A-22	H	10879	65400	3:00	3:15	Unlath CB
BN	A-22	H	10880	63420	3:10	3:15	Hansen LW
BN	A-22	H	10881	63250	3:30	3:35	Ross JVA

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair /
evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

DATE: 1-30-2001

(check one) ☐ Area 9 - U10c ☒ Area 6 Hydrocarbon ☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A-22	H	10886	56760	8:10	8:15	Poss J.A.
B.N.	A-22	H	10884	55760	8:15	8:20	J.A.
B.N.	A-22	H	10883	59580	8:20	8:30	Lary DA
B.N.	A-22	H	10885	66620	9:40	9:50	Aschmore W.C.
B.N.	A-22	H	10888	57800	10:30	10:35	J.A.
B.N.	A-22	H	10889	66260	10:40	10:50	Lary DA
B.N.	A-22	H	10890	566120	12:45	12:50	Poss J.A.
B.N.	A-22	H	10891	56820	1:05	1:15	Chattahoochee
B.N.	A-22	H	10892	61660	13:10	13:20	Lary DA

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair / evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
 - ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

DATE: 1-30-2001

(check one)

☐ Area 9 - U10c☒ Area 6 Hydrocarbon☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A 22	H	10894	62380	2:30	2:40	Ross J.A.
B/IS	A-22	H	10895	56880	3:10	3:20	Valente G.A.
B.N.	A-22	H	10896	65920	3:15	3:25	Cory D.A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair /
evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

DATE: 1-31-2001

(check one)

☐ Area 9 - U10c☒ Area 6 Hydrocarbon☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B.N.	A 22	H	10900	64120	8:30	8:40	Ross J.A.
B.N.	A-22	H	10903	55480	8:35	8:45	Lory D.A.
B/N.	A-22	H	10902	62020	8:30	8:44	Valerie B.
B.N.	A-22	H	10901	61800	8:40	8:45	Shore W.J.
B.N.	A 22	H	10904	56980	10:20	10:30	Ross J.A.
B.N.	A-22	H	10905	55920	10:35	10:45	Lory D.A.
B.N.	A 22	H	10906	57660	10:45	10:50	Shore W.J.
B/N.	A-22	H	10907	56320	11:10	11:20	Valerie B.
B.N.	A-22	H	10908	55400	13:10	13:20	Lory D.A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☒ No ☐ Yes
- Does cover need repair / evidence of settling? ☒ No ☐ Yes
- Does fence need repair? ☒ No ☐ Yes
- Does road(s) need repair? ☒ No ☐ Yes
- Has litter accumulated? ☒ No ☐ Yes
- Has water accumulated? ☒ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY

(date/time):

[Signature] 1-31-2001
9:30

Random Load Inspection:

Ticket Number: _____

- ☒ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

[Signature] 1-31-2001

08/2/17/01

QC Ken
3/5/01

DATE: 2-6-2001

(check one) ☐ Area 9 - U10c☒ Area 6 Hydrocarbon☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
E.R. Dan Tobiason	CAU230/320 ^{A-28} Sewage Sludge	H	10917	61480	11:20	11:30	Ashmore W.T.
E.R. Dan Tobiason	" " "	H	10918	67260	11:22	11:32	LORT DA.
E.R. Dan Tobiason	" " "	H	10920	59920	11:23	11:33	Ross J.A.
E.R. Dan Tobiason	" " "	H	10919	57140	11:24	11:34	Valente Q.
E.R. Dan Tobiason	" " "	H	10922	59060	15:40	15:50	Ashmore W.V.
E.R. Dan Tobiason	" " "	H	10923	47580	16:00	16:10	LORT DA.
E.R. Dan Tobiason	" " "	H	10924	45180	16:10	16:20	Valente Q.
E.R. Dan Tobiason	" " "	H	10925	51460	16:12	16:22	Ross J.A.

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☐ No ☐ Yes
- Does cover need repair /
evidence of settling? ☐ No ☐ Yes
- Does fence need repair? ☐ No ☐ Yes
- Does road(s) need repair? ☐ No ☐ Yes
- Has litter accumulated? ☐ No ☐ Yes
- Has water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
- ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

LANDFILL DAILY ACCESS REGISTER

DATE: 2-8-2001

3/5/01
Kew
2/12/01

WASTE GENERATOR Name, Phone #		WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
BN		A-22 D Rock	H	110934	52040	10:10	10:20	Lokey DA
BN		A-22 D Rock	H	110935	52600	10:11	10:25	Clark D
BN		A-22 D Rock	H	110936	53800	14:00	14:10	Lokey DA
BN		A-22 D Rock	H	110937	53660	14:10	14:20	Clark D
BN		A 22	H	110938	54200	3:30	3:40	Mass J. A
BN		A-22	H	110939	59260	16:10	16:20	Lokey DA
BN		A 22	11	110941	53060	16:20	16:30	Clark D

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

- Do berms/walls need repair? ☒ No ☐ Yes
- Does cover need repair / evidence of settling? ☒ No ☐ Yes
- Does fence need repair? ☒ No ☐ Yes
- Does road(s) need repair? ☒ No ☐ Yes
- Has litter accumulated? ☒ No ☐ Yes
- Has water accumulated? ☒ No ☐ Yes

Corrective Actions Needed:

Random Load Inspection:

- ☐ No prohibited waste was found
- ☐ Yes, the prohibited waste(s) identified below were found.
 - ☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).
 - ☐ Hazardous waste per NAC 444.580
 - ☐ PCB waste regulated by TSCA
 - ☐ Waste containing free liquids
 - ☐ TSCA-regulated
 - ☐ Waste failing the "no added radioactivity" per the POC requirement.
 - ☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)
 - ☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Ticket Number: _____

Corrective Actions Taken: (description, name, date, who notified):

Corrective Actions Taken: (description, name, date):

INSPECTED BY (date/time): *[Signature]* 1-8-2001

INSPECTED BY (date/time):

CJS 2/13/01

DATE: 2-12-01

(check one)

☐ Area 9 - U10c☒ Area 6 Hydrocarbon☐ Area 23 Landfill

WASTE GENERATOR Name, Phone #	WASTE ORIGIN Area, Building	WASTE CODE*	TICKET NUMBER	NET WEIGHT (lbs)	TIME IN	TIME OUT	DRIVER Last Name, Initials
B/N	A-22	H	10943	50720	10:00	10:15	J. J. 18229V
B/N	A-22	H	10944	53420	10:20	10:25	621 Ashby
B/N	A-22	H	10945	54990	10:25	10:36	102200
B/N	A-22	H	10947	59660	12:20	12:25	102200
B/N	A-22	H	10946	57480	12:30	12:35	102200
B/N	A-22	H	10948	63990	1:55	2:10	102200
B/N	A-22	H	10949	54980	2:15	2:26	102200

*Waste Codes: ASB - Asbestos; C - Construction; H - Hydrocarbon; P - Putrescible; NP - Non-Putrescible; S - Sewage Sludge; F - FFACO

INSPECTION INFORMATION

Site Conditions:

Do berms/walls need repair? ☐ No ☐ Yes

Does cover need repair /

evidence of settling? ☐ No ☐ YesDoes fence need repair? ☐ No ☐ YesDoes road(s) need repair? ☐ No ☐ YesHas litter accumulated? ☐ No ☐ YesHas water accumulated? ☐ No ☐ Yes

Corrective Actions Needed:

Corrective Actions Taken: (description, name, date):

INSPECTED BY
(date/time):

Random Load Inspection:

Ticket Number: _____

☐ No prohibited waste was found☐ Yes, the prohibited waste(s) identified below were found.☐ Putrescible waste (prohibited in U10c and Area 6 Landfills).☐ Hazardous waste per NAC 444.580☐ PCB waste regulated by TSCA☐ Waste containing free liquids☐ TSCA-regulated☐ Waste failing the "no added radioactivity" per the POC requirement.☐ Friable asbestos (prohibited in U10c and Area 6 Landfills)☐ Hydrocarbon soil at >100 ppm TPH (prohibited in 23, allowed in U10c provided less than 50 cubic yards/week are disposed)

Corrective Actions Taken: (description, name, date, who notified):

INSPECTED BY (date/time):

APPENDIX D

VERIFICATION SAMPLE ANALYTICAL REPORTS

(Report includes analytical data only. Complete raw data is available in project file)

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NEL LABORATORIES

Reno • Las Vegas • Boise
Phoenix • Sacramento

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1059
PROJECT NUMBER: 23081

NEL ORDER ID: L0104091

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 4/9/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Some surrogate results have been flagged as follows:

D - Sample required dilution. Sample QC results were diluted outside the calibrated range.

Stan Van Wageningen
Laboratory Manager

4/12/01
Date

CERTIFICATIONS:

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-16
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-01

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	111	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-17
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-02

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	105	54 - 130

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-18
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-03

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	112	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-19
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-04

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	108	54 - 130

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-20
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-05

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	123	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-21
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-06

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	107	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-22
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-07

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1
ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C5-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	107	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-23
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-08

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C6-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	107	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-24
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-09

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	117	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-25
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-10

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	126	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-26
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-11

EST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/12/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	112	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-27
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-12

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/12/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	111	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-28
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-13

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1
ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/12/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	120	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-29
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-14

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 9.8

ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/12/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	98. mg/kg
Diesel Range (C12-C22)	ND	98. mg/kg
Oil Range (C12-C34)	2100 mg/kg	490. mg/kg
Total	2100 mg/kg	98. mg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Octacosane	D	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: 320SB-30
DATE SAMPLED: 4/9/01
NEL SAMPLE ID: L0104091-15

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 8.8
ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

PARAMETER	Result	Reporting Limit
Gasoline Range (C8-C12)	ND	88. mg/kg
Diesel Range (C12-C22)	310 mg/kg	88. mg/kg
Oil Range (C12-C34)	3900 mg/kg	440. mg/kg
Total	4210 mg/kg	88. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	D	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010411TPHS-FP-BLK

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
METHOD: EPA 8015M
MATRIX: Solid
ANALYST: CCS - Las Vegas Division
EXTRACTED: 4/11/01
ANALYZED: 4/11/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Gasoline Range (C8-C12)	ND	10. mg/kg
Diesel Range (C12-C22)	ND	10. mg/kg
Oil Range (C12-C34)	ND	50. mg/kg
Total	ND	10. mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Octacosane	94	54 - 130

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1059
PROJECT #: 23081

TEST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
MATRIX: Solid

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
iesel Range (C12-C22)	010411TPHS-FP-LCS	166.7	120	72	53 - 91	
iesel Range (C12-C22)	010411TPHS-FP-LCSD	166.7	107	64	53 - 91	11.5
iesel Range (C12-C22)	L0104091-10-MS	166.7	130	78	34 - 114	
iesel Range (C12-C22)	L0104091-10-MSD	166.7	135	81	34 - 114	3.8
otal	010411TPHS-FP-LCS	166.7	120	72	53 - 91	
otal	010411TPHS-FP-LCSD	166.7	107	64	53 - 91	11.5
otal	L0104091-10-MS	166.7	130	78	34 - 114	
otal	L0104091-10-MSD	166.7	135	81	34 - 114	3.8

D - Not Detected

this report shall not be reproduced except in full, without the written approval of the laboratory.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-15.D
Acq On : 11 Apr 2001 3:08 pm
Sample : L0104091-01
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 11 16:07 2001

Vial: 7
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

-15.D TP0101R2 M

Thu Apr 12 07:50:16 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-16.D
Acq On : 11 Apr 2010 3:08 pm

Sample : L0104091-02

Misc : SOIL SAMPLE

IntFile : events.e

Vial: 8

Operator: CCS

Inst : Seymour

Multiplr: 1.00

Quant Time: Apr 11 16:08 2001 Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)

Title : 6/21/99 Seymour Front TPH

Last Update : Fri Jan 05 08:51:13 2001

Response via : Multiple Level Calibration

DataAcq Meth : TP9907R1.M

Volume Inj. :

Signal Phase :

Signal Info :

Thu Apr 12 07:39:12 2001

Page 2

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-17.D
Acq On : 11 Apr 2010 3:58 pm
Sample : L0104091-03
Misc : SCIL SAMPLE
IntFile : events.e
Quant Time: Apr 11 16:52 2001

Vial: 9
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-18.D
 Acq On : 11 Apr 2010 3:58 pm
 Sample : L0104091-04
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Apr 11 16:50 2001

Vial: 10
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Fri Jan 05 08:51:13 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-19.D
Acq On : 11 Apr 2010 4:50 pm
Sample : L0104091-05
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:41 2001

Vial: 11
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TPG101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPR
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-20.D
 Acq On : 11 Apr 2010 4:50 pm
 Sample : L0104091-06
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Apr 12 7:32 2001

Vial: 12
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Fri Jan 05 08:51:13 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-22.D
Acq On : 11 Apr 2010 5:41 pm
Sample : L0104091-07
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:33 2001

Vial: 13
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Fri Jan 05 08:51:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-24.D
Acq On : 11 Apr 2010 6:32 pm
Sample : L0104091-08
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:34 2001

Vial: 14
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Fri Jan 05 08:51:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-26.D
Acq On : 11 Apr 2010 7:23 pm
Sample : L0104091-09
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:35 2001

Vial: 15
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Fri Jan 05 08:51:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-21.D
Acq On : 11 Apr 2010 5:41 pm
Sample : L0104091-10
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:43 2001

Vial: 16
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-23.D
Acq On : 11 Apr 2010 6:32 pm
Sample : L0104091-10 MS
Misc : SOIL SAMPLE MATRIX SPIKE
IntFile : events.e
Quant Time: Apr 12 7:44 2001

Vial: 20
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-25.D
 Acq On : 11 Apr 2010 7:23 pm
 Sample : L0104091-10 MSD
 Misc : SOIL SAMPLE MATRIX SPIKE DUP
 IntFile : events.e
 Quant Time: Apr 12 7:45 2001

Vial: 21
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-41.D
Acq On : 12 Apr 2010 2:10 am
Sample : L0104091-11
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:48 2001

Vial: 17
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-42.D
Acq On : 12 Apr 2010 2:10 am
Sample : L0104091-12
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:37 2001

Vial: 15
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Fri Jan 05 08:51:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-43.D
Acq On : 12 Apr 2010 3:00 am
Sample : L0104091-13
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:49 2001

Vial: 19
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-43.D
Acq On : 12 Apr 2010 3:00 am
Sample : L0104091-13
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 7:50 2001

Vial: 19
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
Title : 7/12/99 Seymour REAR Oil Method
Last Update : Wed May 24 09:21:09 2000
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Thu Apr 12 07:50:20 2001

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-55.D
 Acq On : 12 Apr 2010 8:05 am
 Sample : L0104091-14

Misc : SOIL SAMPLE
 IntFile : events.e

Vial: 25
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Time: Apr 12 10:11 2001 Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411.SEC\0411-55.D
 Acq On : 12 Apr 20101 8:05 am
 Sample : L0104091-14
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Apr 12 10:12 2001

Vial: 25
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OLO101R1.RES
 Quant Method : C:\HPCHEM\2\METHODS\OLO101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-56.D
Acq On : 12 Apr 2010 8:05 am
Sample : L0104091-15
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Apr 12 10:17 2001

Vial: 26
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: TP0101F1.RES

Quant method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Fri Jan 05 08:51:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010411\0411-56.D
Acq On : 12 Apr 2010 8:05 am

Sample : L0104091-15
Misc : SOIL SAMPLE

IntFile : events.e

Quant Time: Apr 12 10:17 2001 Quant Results File: OL0012F4.RES

Vial: 26
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\OLC012F4.M (Chemstation Integrator)
Title : 6/7/99 Seymour Front Oil Method
Last Update : Fri Dec 22 11:18:05 2000
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

ANALYTICAL SERVICES LABORATORY

SERVICES REQUEST & CHAIN OF CUSTODY RECORD

LO104091

Page 1 of 2

PROJECT/CLIENT INFORMATION					REPORT INFORMATION					SAMPLE INFORMATION										
Project: CAN 230/320		BN Orig: 2150			Send Report to: DAN TOBIASON					Sampling Site: CAN 320 SLUDGE BED The samples submitted contain (check): () Hazardous () Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.										
Charge No.: C7D19D61		ASL Prog.:			Phone: 702-295-6169		Fax: 702-295-7761		M/S: NTS306											
Project Manager: WAYNE JOHNSON					Turnaround: () Standard - 30 days Non-rad, 60 Days Rad, Other: (X) Rush Preliminary by: 4/12/01 Final by: _____					<div> <div>SAMPLE RECEIPT INFORMATION</div> <div>Are all sample containers received intact () Yes () No</div> <div>Comments: _____</div> <div>Do the labels agree with this form? () Yes () No</div> <div>Comments: _____</div> <div>Was a Material Clearance Tag submitted? () Yes () No</div> <div>Comments: _____</div> <div>COMMENTS (Preservative, size/volume, MB/MSD, special analyte, rad matrix code, count time, etc.)</div> <div>1-250ml glass jar per sample.</div> <div>IF ASPHALT IS NOTED IN SAMPLE DO NOT ANALYZE ASPHALT EXCEPT FOR SAMPLES 320SB-29, 320SB-30</div> </div>										
Phone: 702-295-0573		Fax: 702-295-7761			M/S: NTS306		Final report format: (X) Standard () NTS-WAC () Other: _____													
LAB USE ONLY					ANALYSES & METHOD															
Rad SGD: _____ Non-Rad SGD: V1059					<div> <div>TPH DIESEL SOILS NPA</div> <div>4/12</div> <div>1-250ml glass jar per sample</div> </div>															
Rad Packet: _____ Non-Rad Packet: _____																				
Client Services Representative: _____																				
Will these analyses be performed under a signed SOW? () YES () NO If so, do analyses entered here agree with the SOW? () YES () NO () N/A If not, identify the variation: _____ CSR initials indicating review and approval: _____ Date: _____																				
ITEM	ID / DESCRIPTION	SAMPLING DATE	TIME	MATRIX																
01	320SB-16	4/9/01	1026	SOIL	X															
02	320SB-17		1034		X															
03	320SB-18		1026		X															
04	320SB-19		1030		X															
05	320SB-20		1036		X															
06	320SB-21		1042		X															
07	320SB-22		1042		X															
08	320SB-23		1042		X															
09	320SB-24		1046		X															
10	320SB-25		1051		X															
Transfer of samples submitted for analyses					Complete for samples shipped to an OFF-SITE Subcontract Laboratory															
Sampled/Relinquished (Signature/Organization)		DATE / TIME		Received by (Signature/Organization)		Relinquished (BN Representative Signature)					DATE / TIME		Received (Courier & Tracking Info.)							
Dan STIL		4/9/01 1640		NAL-UV																
						Relinquished (Courier & Tracking Info.)					DATE / TIME		Received (1st tier Subcontractor Rep)							
						Relinquished (1st tier Subcontractor Rep)					DATE / TIME		Received (2nd tier Subcontractor Rep)							

Distribution: Original - To be retained by laboratory performing final analysis
 Copy 1 - To be retained by laboratory performing intermediate analysis
 Copy 2 - To be retained by Analytical Services Laboratory
 Copy 3 - To be retained by sampler

Bechtel NevadaANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

10104091 Page 2 of 2

PROJECT/CLIENT INFORMATION				REPORT INFORMATION				SAMPLE INFORMATION					
Project: CAY 230/320		BN Org#: Z150		Send Report to: DAN TDBIASON				Sampling Site: CAU320 SLUDGE BED The samples submitted contain (check): () Hazardous () Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminant. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.					
Charge No.: C7019461		ASL Prog.:		Phone: 702-295-6169		Fax: 702-295-7761						M/S: NTS 306	
Project Manager: WAYNE JOHNSON				Turnaround: () Standard - 30 days Non-rad, 60 Days Rad, Other: X Rush Preliminary by: 4/12/01 Final by: _____				SAMPLE RECEIPT INFORMATION Are all sample containers received intact () Yes () No Comments: _____ Do the labels agree with this form? () Yes () No Comments: _____ Was a Material Clearance Tag submitted? () Yes () No Comments: _____ COMMENTS (Preservative, size/volume, MS/MSD, special analysis, rad matrix code, count time, etc.) 1-250ml glass jar per sample. IF ASPHALT IS NOTED IN SAMPLE DO NOT ANALYZE ASPHALT EXCEPT FOR SAMPLES 320SB-29, 320SB-30					
Phone: 702-295-0581		Fax: 702-295-7761		M/S: NTS 306		Final report format: (X) Standard () NTS-WAC () Other: _____							
LAB USE ONLY				ANALYSES & METHOD				TPH DIESEL SOIL MPA. <div style="font-size: 2em; text-align: center;">4/12</div>					
Rad SGD:		Non-Rad SGD: V1059											
Rad Packet:		Non-Rad Packet:											
Client Services Representative:													
Will these analyses be performed under a signed SOW? () YES () NO If so, do analyses entered here agree with the SOW? () YES () NO () N/A If not, identify the variation _____ CSR initials indicating review and approval: _____ Date: _____													
ITEM	ID / DESCRIPTION	SAMPLING		MATRIX	X								
		DATE	TIME										
11	0 320SB-26	4/9/01	1050	SOIL	X								
12	1 320SB-27	}	1054	↓	X								
13	2 320SB-28		1059		X								
14	3 320SB-29		1103		SOLID	X							
15	4 320SB-30	↓	1106	SOLID	X								
5													
6													
7													
8													
9													
Transfer of samples submitted for analyses					Complete for samples shipped to an OFF-SITE Subcontract Laboratory								
Sampled/Relinquished (Signature/Organization)		DATE / TIME		Received by (Signature/Organization)		Relinquished (BN Representative Signature)		DATE / TIME		Received (Courier & Tracking Info.)			
W. JOHNSON		4/9/01 1640		W. JOHNSON									
						Relinquished (Courier & Tracking Info.)		DATE / TIME		Received (1st tier Subcontractor Rep)			
						Relinquished (1st tier Subcontractor Rep)		DATE / TIME		Received (2nd tier Subcontractor Rep)			

Distribution: Original - To be retained by laboratory performing final analysis
 Copy 1 - To be retained by laboratory performing intermediate analysis
 Copy 2 - To be retained by Analytical Services Laboratory
 Copy 3 - To be retained by sampler

TIER I CHECKLIST

This checklist is essentially a completeness review to ensure that all field and laboratory data and documentation are present and complete. The review is designed to be expeditiously conducted by designated, qualified BN ER personnel, upon receipt of the analytical data from the laboratory. During Tier I review, problems shall be identified, documented, and transferred with the data for a Tier II review. This review will be completed on all analytical data/laboratory results. Check for the following items:

- ☒ Chain of custody is complete and legible.
- ☒ Cover letter (case narrative) reviewed for significant problems.
- ☒ All requested analyses were performed on all samples.
- ☒ Holding times are not beyond specified standards.
- ☒ Note cooler temperature on cooler is not above 4 degrees Celsius.
- ☒ Was the proper preservation and pH for each Matrix used?
- ☒ Check the laboratory log-in report for completeness and errors.
- ☒ All field forms are present and complete.
- ☒ Report forms inventory includes all CLP or LP-like forms.
- ☒ Reporting levels are at the appropriate level.

TIER I REVIEW

GENERAL INFORMATION

1. Project Name or Sample Delivery Group (SDG): V105F

2. Date Samples taken: 4/9/01

SAMPLE NUMBER	DATE RECEIVED	DATE ANALYZED
3205B-16	4/9/01	4/11/01
3205B-17		4/11/01
3205B-18		4/11/01
3205B-19		4/11/01
3205B-20		4/11/01
3205B-21		4/11/01
3205B-22		4/11/01
3205B-23		4/11/01
3205B-24		4/11/01
3205B-25		4/11/01
3205B-26		4/11/01
3205B-27		4/12/01
3205B-28		4/12/01
3205B-29		4/12/01
3205B-30	✓	4/11/01

3. Date of Review: 4/12/01

4. Chain of Custody (COC):

Completed? ☒ Yes ☐ No

Legible? ☒ Yes ☐ No

5. Is a cover letter/case narrative attached? ☒ Yes ☐ No

If 'yes,' has it been reviewed for significant problems? ☒ Yes ☐ No ☐ NA

Comments: Samples 32050-29 + 32050-30 are ~~exhaust~~ and had to be
diluted.

6. Analyses requested (Attach COC, Sample Request Form, and lab data packet to this review):

☐ Total VOCs ☐ Total BNA ☐ Total Metals ☐ Radionuclides
☐ TCLP VOCs ☐ TCLP BNA ☐ TCLP Metals ☒ TPH
☐ PCBs ☐ Other:

7. Were all requested analyses performed on all samples? ☒ Yes ☐ No

8. Temperature on cooler: 6 °C (parameters: 4°C ±2°) or ☐ NA

10. Refer to Table 1. Was the proper preservation used? ☐ Yes ☐ No ☒ NA

If 'no,' then explain:

TOTAL PETROLEUM HYDROCARBONS (TPH)

PARAMETER	EXTRACTION HOLD TIME	ANALYSIS HOLD TIME	DAYS HELD	PASS Y/N	SAMPLES NOT PASSING
Total TPH EPA Method 8015M or 8015B	Liquids - 14 days Soils - 14 days Oil - 14 days	NA	/	Y	
Total TPH EPA Method 8015M or 8015B	NA	Liquids - 40 days Soils - 40 days Oil - 40 days	/	Y	
Comments:					

Was TPH digestion done within the hold time limit? ☒ Yes ☐ No

Were analyses run within the hold time limit? ☒ Yes ☐ No

A. TPH reported as: ☒ mg/Kg or ☐ ug/Kg Other:

B. Hits above detection level found in LB, RBS, FB, RB, or other QA samples? ☐ Yes ☒ No
If 'yes,' explain: *no*

C. Did laboratory report indicate any problems? ☐ Yes ☒ No
If 'yes,' explain:

SUMMARY

Laboratory log-in report check for completeness and errors? ☒ Yes ☐ No

Are all field forms are present and complete? ☒ Yes ☐ No

Does the report forms inventory include all CLP or LP-like forms? ☒ Yes ☐ No

Are the reporting levels at the appropriate level? ☒ Yes ☐ No

If 'no,' list the exceptions below:

SAMPLE ID	PARAMETER/ ANALYSIS	REPORTING LEVELS	ACTUAL LEVEL	COMMENTS

Was the sample count/type consistent with the COC? ☒ Yes ☐ No

Were the results reported for both the field and laboratory QC samples? ☒ Yes ☐ No

Is the analysis count/type consistent with the COC? ☒ Yes ☐ No

Was the correct sample matrix used for each sample? ☒ Yes ☐ No

Certificates of Analysis (COAs) checked for completeness? ☒ Yes ☐ No

Condition-upon-receipt variance form included? ☐ Yes ☐ No ☒ N/A

Did the deliverable meet the overall objectives of the project? ☒ Yes ☐ No

16. Are all signatures in place? On COC? ☒ Yes ☐ No On Data pkg.? ☒ Yes ☐ No

Explanation for any problems:

SUMMARY (cont.)

18. Overall Comments:

19. Reviewed by:

Kraig Krapp

Date:

4/12/01

Signature

Kraig Krapp

20. Task Manager or TPO

Date:

Signature

NEL LABORATORIES

Reno • Las Vegas • Boise
Phoenix • Sacramento

Las Vegas Division
4208 Arcata Way, Suite A - Las Vegas, NV 89030
(702) 657-1010 • Fax (702) 657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1034
PROJECT NUMBER: 23081

NEL ORDER ID: L0183143

Attached are the analytical results for samples in support of the above referenced project.
Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 3/14/01.
Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Stan Van Wagenen
Laboratory Manager

3/26/01 Re-issue
Date

CERTIFICATIONS:

	Reno	Las Vegas	S. California
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	Reno	Las Vegas	S. California
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

IENT: Bechtel Nevada
 OJECT ID: V1034
 OJECT #: 23081

CLIENT ID: 320SB-EB-1
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-01

ST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1992
 ETHOD: EPA 8015M
 ATRIX: Aqueous
 LUTION: 1

ANALYST: CCS - Las Vegas Division
 EXTRACTED: 3/16/01
 ANALYZED: 3/16/01

PARAMETER

oline Range (C8-C12)
 sel Range (C12-C22)
 Range (C12-C34)
 d

Result

ND
 ND
 ND
 ND

Reporting Limit

0.5 mg/L
 0.5 mg/L
 0.5 mg/L
 0.5 mg/L

QUALITY CONTROL DATA:

rogate

icosane

% Recovery

103

Acceptable Range

60 - 121

- Not Detected

report shall not be reproduced except in full, without the written approval of the laboratory.

IENT: Bechtel Nevada
 OJECT ID: V1034
 OJECT #: 23081

CLIENT ID: Method Blank
 DATE SAMPLED: NA
 NEL SAMPLE ID: 010316TPHW-FP-BLK

ST: Total Extractable Petroleum Hydrocarbons Fuel Finger Print by EPA Method 8015M, July 1997
 THOD: EPA 8015M
 TRX: Aqueous
 ANALYST: CCS - Las Vegas Division
 EXTRACTED: 3/16/01
 ANALYZED: 3/16/01

RAMETER

oline Range (C8-C12)
 el Range (C12-C22)
 Range (C12-C34)

Result

ND
 ND
 ND
 ND

**Reporting
Limit**

0.5 mg/L
 0.5 mg/L
 0.5 mg/L
 0.5 mg/L

ILITY CONTROL DATA:

ogate
 icosane

% Recovery

84

Acceptable Range

60 - 121

- Not Detected

report shall not be reproduced except in full, without the written approval of the laboratory.

IENT: Bechtel Nevada
 ECT ID: V1034
 ECT #: 23081

CLIENT ID: Method Blank
 DATE SAMPLED: NA
 NEL SAMPLE ID: 010320GAS-BLK

I: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 HOD: EPA 8015M
 RDX: Solid

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

METER

ine

Result

ND

**Reporting
Limit**

0.25 mg/kg

ITY CONTROL DATA:

gate
 Trifluorotoluene

% Recovery

108

Acceptable Range

65 - 120

Not Detected

port shall not be reproduced except in full, without the written approval of the laboratory.

SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 2

P: 576 05

PROJECT/CIENT INFORMATION			REPORT INFORMATION			SAMPLE INFORMATION		
Project: CAU 230/520 Charge No.: 27D19A61	BIN Orig: Z/D ASL Proj:	Send Report to: DAN TOLSON Phone: S-6169 Fax: S-7761	MIS: NTS 306	Sampling Site: CAU 320 SLUDGE BED The samples submitted contain (check): () Hazardous () Radioactive (X) Unknown Identifying contaminants. If known, attach a brief narrative summary compliance with applicable regulations and allow for the safe handling of the sample materials.				
Project Manager: WAYNE JOHNSON Phone: S-0577 Fax: S-7761	MIS: NTS 306	Turnaround: () Standard - 30 days Non-rad, 80 Days Rad, Other: W/R Rush Preliminary by: 3/26/01 Final by:						
Final report format: (X) Standard () NTG-WAG () Other:								
RAD SGD: V1034 RAD Packet: H0324 ps Client Services Representative:			ANALYSES & METHOD					
Will these analyses be performed under a signed BCN? () YES () NO If no, do analyses entered here agree with the SOW? () YES () NO () N/A If not identify the variation: CER include indicating review and approval: Date:			Level 4					
Date:			TPM FILE SIGN: 3/15/00 PAY ITEM 10.21 PAY ITEM 0.59 PM ITEM 5.61					
SAMPLING DATE TIME MATRIX								
0	320SD-EB-1	3/14/00 12:00 WATER	X	X	X	X	X	X
1	320SD-1	3/14/00 12:51 SOIL	X	X	X	X	X	X
2	320SD-2 MS/MJA	3/14/00 13:20	X	X	X	X	X	X
3	320SD-3	3/14/00 12:50	X	X	X	X	X	X
4	320SD-4	3/14/00 12:50	X	X	X	X	X	X
5	320SD-5	3/14/00 13:10	X	X	X	X	X	X
6	320SD-6	3/14/00 13:00	X	X	X	X	X	X
7	320SD-7	3/14/00 1:00	X	X	X	X	X	X
8	320SD-8	3/14/00 1:09	X	X	X	X	X	X
9	320SD-9	3/14/00 1:20	X	X	X	X	X	X
Transfer of samples submitted for analysis			Custody Seal Intact: (X) Yes () No Condition when received: Poor					
Completed/Qualified (Signature/Organization)			Completed for samples shipped to an OFF-SITE Subcontract Laboratory Required (Signature/Organization) Refined (Counter/Tracking Info)					
DATE / TIME: 3/14/00 12:00			DATE / TIME: 3/14/00 12:00					
Received by: Wayne Johnson			Received by: [Signature]					
Received (1st User Subcontractor Rep)			Received (1st User Subcontractor Rep)					
Received (2nd User Subcontractor Rep)			Received (2nd User Subcontractor Rep)					

PROJECT/CLIENT INFORMATION		REPORT INFORMATION		SAMPLE INFORMATION	
Project: <u>CAH 230/320</u>	BN Org#: <u>2150</u>	Send Report to: <u>DAN TOBIASON</u>		Sampling Site: <u>CAH 320 SLUDGE BED</u>	
Charge No.: <u>C7D19D61</u>	ASL Prog.:	Phone: <u>5-6164</u>	Fax: <u>5-7761</u>	The samples submitted contain (check): ☐ Hazardous ☐ Radioactive ☒ Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.	
Project Manager: <u>WAYNE JOHNSON</u>		Turnaround: ☐ Standard - 30 days Non-rad, 60 Days Rad, Other: <u>W/ Rush</u>			
Phone: <u>5-0573</u>	Fax: <u>5-7761</u>	M/S: <u>NTS306</u>		Final report format: ☒ Standard ☐ NTS-WAC ☐ Other:	

LAB USE ONLY		ANALYSES & METHOD										SAMPLE RECEIPT INFORMATION	
Rad SGD:	Non-Rad SGD: <u>V1034</u>	<div style="text-align: center; font-size: 2em;">Level 4</div>										Are all sample containers received intact? ☒ Yes ☐ No Comments:	
Rad Packet:	Non-Rad Packet:											Do the labels agree with this form? ☒ Yes ☐ No Comments:	
Client Services Representative:												Was a Material Clearance Tag submitted? ☒ Yes ☐ No Comments:	
Will these analyses be performed under a signed SOW? ☐ YES ☐ NO If so, do analyses ordered here agree with the SOW? ☐ YES ☐ NO ☐ N/A If not, identify the variation: _____ Date: _____ CSR Initials indicating review and approval: _____													

ITEM	ID/DESCRIPTION	SAMPLING		MATRIX	TPH FULL SCAN	TPH ITEM											COMMENTS (Preservative, electrolyte, MS/MSD, special analysis, rad matrix code, count time, etc.)
		DATE	TIME														
11	0 320-SB-10	3/1/84	1:31	SOIL	X	X											1-250ml glass
12	1 320SB-11		1:41		X	X											
13	2 320SA-12		1:40		X	X											
14	3 320SA-13		1:50		X	X											IF asphalt is noted
15	4 320SB-14		1:25		X	X											in sample do not
16	5 320SB-15		1:30		X	X											ANALYZE
17	6 LAST ITEM																sample asphalt
18	7																
19	8																
20	9																

Transfer of samples submitted for analysis			Complete for samples shipped to an QAPP-SITS Subcontract Laboratory <u>NEC</u>		
Sampled/Relinquished (Signature/Organization)	DATE/TIME	Received by (Signature/Organization)	Relinquished (BN Representative Signature)	DATE/TIME	Received (Collector & Tracking Info)
<u>Dan STARR - BNEL</u>	<u>4/16/84</u>	<u>Shelby Buena</u>	<u>Shelby Buena</u>	<u>3/14/84 17:35</u>	<u>Shelby Buena</u>
			Relinquished (Courier & Tracking Info)	DATE/TIME	Received (1st tier Subcontractor Rep)
			Relinquished (1st tier Subcontractor Rep)	DATE/TIME	Received (2nd tier Subcontractor Rep)

NEL LABORATORIES

Reno • Las Vegas • Boise
Phoenix • Sacramento

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1034
PROJECT NUMBER: 23081

NEL ORDER ID: L0103143

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 3/14/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Stan Van Wageningen
Laboratory Manager

3/22/01
Date

CERTIFICATIONS:

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-1
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-02

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER	Result	Reporting Limit
Gasoline	ND	0.25 mg/kg

QUALITY CONTROL DATA:

Parameter	% Recovery	Acceptable Range
Surrogate m-Trifluorotoluene	70	65 - 120

- Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-2 MS/MSD
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-03

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO

METHOD: EPA 8015M

MATRIX: Solid

DILUTION: 1

ANALYST: JQT - Las Vegas Division

EXTRACTED: NA

ANALYZED: 3/20/01

PARAMETER

asoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

a,a-Trifluorotoluene

% Recovery

79

Acceptable Range

65-120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-3
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-04

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

gasoline

Result

ND

ReportingLimit

0.25 mg/kg

QUALITY CONTROL DATA: surrogate

m,p-Trifluorotoluene

% Recovery

79

Acceptable Range

65 - 120

- Not Detected

Report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

CLIENT ID: 3205B-4
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-05

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 METHOD: EPA 8015M
 MATRIX: Solid
 DILUTION: 1

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

m,p-Trifluorotoluene

% Recovery

67

Acceptable Range

65 - 120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-5
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-06

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

1,2-Trifluorotoluene

% Recovery

65

Acceptable Range

65 - 120

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-6
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-07

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO

METHOD: EPA 8015M

MATRIX: Solid

DILUTION: 1

ANALYST: JQT - Las Vegas Division

EXTRACTED: NA

ANALYZED: 3/20/01

PARAMETER

Isoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

1,2-Trifluorobenzene

% Recovery

72

Acceptable Range

65 - 120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-7
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-08

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER	Result	Reporting Limit
Gasoline	ND	0.25 mg/kg

QUALITY CONTROL DATA:

Parameter	% Recovery	Acceptable Range
Surrogate p-Trifluorotoluene	77	65 - 120

- Not Detected

- report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

CLIENT ID: 320SB-8
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-09

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 METHOD: EPA 8015M
 MATRIX: Solid
 DILUTION: 1

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

PARAMETER

Isoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

inrogate

1,1,1-Trifluorotoluene

% Recovery

69

Acceptable Range

65 - 120

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bachtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

CLIENT ID: 320SB-9
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-10

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 METHOD: EPA 8015M
 MATRIX: Solid
 ELUTION: 1

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

% Recovery

74

Acceptable Range

65 - 120

1,2,4-Trifluorotoluene

1 - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

CLIENT ID: 320-SB-10
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-11

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 METHOD: EPA 8015M
 MATRIX: Solid
 DILUTION: 1

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting
Limit

0.25 mg/kg

QUALITY CONTROL DATA:Surrogate

1,2,4-Trifluorobenzene

% Recovery

78

Acceptable Range

65 - 120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-11
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-12

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Baseline	ND	0.25 mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
m,p-Trifluorotoluene	96	65 - 120

1 - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Beshel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-12
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-13

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

asoline

Result

Reporting

ND

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

a,a-Trifluorotoluene

% Recovery

85

Acceptable Range

65 - 120

D - Not Detected

his report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-13
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-14

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

% Recovery

71

Acceptable Range

65 - 120

1,1,1-Trifluorotoluene

1 - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

CLIENT ID: 320SB-14
 DATE SAMPLED: 3/13/01
 NEL SAMPLE ID: L0103143-15

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
 METHOD: EPA 8015M
 MATRIX: Solid
 DILUTION: 1

ANALYST: JQT - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 3/20/01

PARAMETER

asoline

Result

ND

Reporting**Limit**

0.25 mg/kg

QUALITY CONTROL DATA:irrogate

1,1,1-Trifluorotoluene

% Recovery

97

Acceptable Range

65 - 120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: 320SB-15
DATE SAMPLED: 3/13/01
NEL SAMPLE ID: L0103143-16

TEST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid
DILUTION: 1

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

Gasoline

Result

ND

Reporting

Limit

0.25 mg/kg

QUALITY CONTROL DATA:

Surrogate

% Recovery

90

Acceptable Range

65 - 120

m,p-a-Trifluorotoluene

- Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010320GAS-BLK

EST: Purgeable Total Petroleum Hydrocarbons by Mod8015-GRO
METHOD: EPA 8015M
MATRIX: Solid

ANALYST: JQT - Las Vegas Division
EXTRACTED: NA
ANALYZED: 3/20/01

PARAMETER

	<u>Result</u>	<u>Reporting Limit</u>
Gasoline	ND	0.25 mg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
1,2,4-Trifluorotoluene	108	65 - 120

D - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

TEST: Total Extractable Petroleum Hydrocarbons by EPA Method 8015M, December 1996
METHOD: EPA 8015M
ORDER ID: L0103143

MATRIX: Aqueous

ANALYST: CCS - Las Vegas Division

CLIENT SAMPLE ID	SAMPLE DATE	NEL SAMPLE ID	RESULT mg/L	C.R.	Reporting Limit	Surrogate Recovery*	EXTRACTED	ANALYZED
320SB-EB-1	3/13/01	L0103143-01	ND	ND	0.5 mg/L	103 %	3/16/01	3/16/01

C.R.: Carbon Range

DO Diesel Range Organics (C10 to C28) and Oil Range Organics (C18 to C34).

O Oil Range Organics (C18 to C34).

QUALITY CONTROL DATA (Total for Diesel Range):

Sample ID	Result	Acceptable Range	Surrogate Recovery*	Sample Number
Blank, 010316TP -BLK	ND	< 0.5 mg/L	84 %	NA
LCS, 010316TPHW-LCS	71 %	53 - 91 %	88 %	NA
LCSD, 010316TPHW-LCSD	76 %	53 - 91 %	86 %	NA
Blank, 010320TP -BLK	ND	< 20 mg/kg	92 %	NA
LCS, 010320TPHS-LCS	76 %	54 - 91 %	114 %	NA
LCSD, 010320TPHS-LCSD	80 %	54 - 91 %	101 %	NA
MS, 010320TPHS-MS	75 %	34 - 110 %	90 %	L0103143-03
MSD, 010320TPHS-MSD	76 %	34 - 110 %	122 %	L0103143-03

* Surrogate used was Octacosane, acceptance limits 65-130%.

ID - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

CLIENT: Bechtel Nevada
PROJECT ID: V1034
PROJECT #: 23081

TEST: Total Extractable Petroleum Hydrocarbons by EPA Method 8015M, December 1996
METHOD: EPA 8015M
ORDER ID: L0103143

MATRIX: Solid

ANALYST: CCS - Las Vegas Division

CLIENT SAMPLE ID	SAMPLE DATE	NEL SAMPLE ID	RESULT mg/kg	C.R.	Reporting Limit	Surrogate Recovery*	EXTRACTED	ANALYZED
320SB-1	3/13/01	L0103143-02	180	DO	20. mg/kg	120 %	3/20/01	3/21/01
320SB-2 MS/MSD	3/13/01	L0103143-03	ND	ND	20. mg/kg	109 %	3/20/01	3/20/01
320SB-3	3/13/01	L0103143-04	63	O	20. mg/kg	74 %	3/20/01	3/20/01
320SB-4	3/13/01	L0103143-05	ND	ND	20. mg/kg	102 %	3/20/01	3/20/01
320SB-5	3/13/01	L0103143-06	ND	ND	20. mg/kg	111 %	3/20/01	3/20/01
320SB-6	3/13/01	L0103143-07	ND	ND	20. mg/kg	103 %	3/20/01	3/20/01
320SB-7	3/13/01	L0103143-08	60	O	20. mg/kg	109 %	3/20/01	3/21/01
320SB-8	3/13/01	L0103143-09	210	DO	20. mg/kg	61 %	3/20/01	3/21/01
320SB-9	3/13/01	L0103143-10	320	DO	20. mg/kg	95 %	3/20/01	3/21/01
320-SB-10	3/13/01	L0103143-11	390	DO	20. mg/kg	80 %	3/20/01	3/21/01
320SB-11	3/13/01	L0103143-12	ND	ND	20. mg/kg	86 %	3/20/01	3/20/01

C.R.: Carbon Range

DO Diesel Range Organics (C10 to C28) and Oil Range Organics (C18 to C34).
O Oil Range Organics (C18 to C34).

QUALITY CONTROL DATA (Total for Diesel Range):

Sample ID	Result	Acceptable Range	Surrogate Recovery*	Sample Number
Blank, 010316TP -BLK	ND	< 0.5 mg/L	84 %	NA
LCS, 010316TPHW-LCS	71 %	53 - 91 %	88 %	NA
LCSD, 010316TPHW-LCSD	76 %	53 - 91 %	86 %	NA
Blank, 010320TP -BLK	ND	< 20 mg/kg	92 %	NA
LCS, 010320TPHS-LCS	76 %	54 - 91 %	114 %	NA
LCSD, 010320TPHS-LCSD	80 %	54 - 91 %	101 %	NA
MS, 010320TPHS-MS	75 %	34 - 110 %	90 %	L0103143-03
MSD, 010320TPHS-MSD	76 %	34 - 110 %	122 %	L0103143-03

* Surrogate used was Octacosane, acceptance limits 65-130%.

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1034
 PROJECT #: 23081

TEST: Total Extractable Petroleum Hydrocarbons by EPA Method 8015M, December 1996

METHOD: EPA 8015M

ORDER ID: L0103143

MATRIX: Solid

ANALYST: CCS Las Vegas Division

CLIENT SAMPLE ID	SAMPLE DATE	NEL SAMPLE ID	RESULT mg/kg	C.R.	Reporting Limit	Surrogate Recovery*	EXTRACTED	ANALYZED
320SB-12	3/13/01	L0103143-13	ND	ND	20. mg/kg	94 %	3/20/01	3/20/01
320SB-13	3/13/01	L0103143-14	260	DO	20. mg/kg	92 %	3/20/01	3/20/01
320SB-14	3/13/01	L0103143-15	ND	ND	20. mg/kg	103 %	3/20/01	3/20/01
320SB-15	3/13/01	L0103143-16	ND	ND	20. mg/kg	103 %	3/20/01	3/20/01

D.R.: Carbon Range

DO Diesel Range Organics (C10 to C28) and Oil Range Organics (C18 to C34).

O Oil Range Organics (C18 to C34).

QUALITY CONTROL DATA (Total for Diesel Range):

Sample ID	Result	Acceptable Range	Surrogate Recovery*	Sample Number
Blank, 010316TP -BLK	ND	< 0.5 mg/L	84 %	NA
CS, 010316TPHW-LCS	71 %	53 - 91 %	88 %	NA
LCSD, 010316TPHW-LCSD	76 %	53 - 91 %	86 %	NA
Blank, 010320TP -BLK	ND	< 20 mg/kg	92 %	NA
CS, 010320TPHS-LCS	76 %	54 - 91 %	114 %	NA
LCSD, 010320TPHS-LCSD	80 %	54 - 91 %	101 %	NA
CS, 010320TPHS-MS	75 %	34 - 110 %	90 %	L0103143-03
SD, 010320TPHS-MSD	76 %	34 - 110 %	122 %	L0103143-03

* Surrogate used was Octacosane, acceptance limits 65-130%.

D - Not Detected

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ANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

REPORT INFORMATION

SAMPLE RECEIPT INFORMATION
Are all sample containers received intact? ☒ Yes ☐ No
Comments:

Do the labels agree with this form?
Comments:

Was a Material Clearance Required? ☒ Yes () No
Comments:

CONTENTS
(Preservative, 2nd volume, 1894-95,
special analysis, and material costs, condensed, etc.)

1-12 g/ks, 1-120 ml g/ks
1-250 ml g/ks

MS/ASD

If asphalt is noted
in sample, do not
analyze sample exhibit

Temp: 20°
(Good)

Contract Laboratory **AMEL**

DATE / TIME	Received (Courier & Tracking info)
30/9/2017 3:58 PM	✓
DATE / TIME	Received (Tel Fax Sebonet/trator flow)

[illegible]

TTTTT

L01W175

Bechtel NevadaANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORDPage 2 of 2

PROJECT/CLIENT INFORMATION				REPORT INFORMATION				SAMPLE INFORMATION			
Project: CAH 230/320		BN Orig: 2150		Send Report to: DAN TOBIASON				Sampling Site: CAH 320 SLUDGE BED			
Charge No.: C7019061		ASL Prog: _____		Phone: 5-6169		Fax: 5-7761		MIB: NTS306		The samples submitted contain (check): () Hazardous () Radioactive (X) Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.	
Project Manager: WAYNE JOHNSON				Turnaround: () Standard - 30 days Non-rad, 60 Days Rad, Other: _____ W Rush Preliminary by: 3/26/01 Final by: _____							
Phone: 5-0573		Fax: 5-7761		MIB: NTS306		Final report format: (X) Standard () NTS-WAC () Other: _____					
LAB USE ONLY				ANALYSES & METHOD				SAMPLE RECEIPT INFORMATION			
Rad SGD: _____		Non-Rad SGD: V1034		<div style="display: flex; justify-content: space-between;"> <div> TPH FULL SCAN RESULTS PAY ITEM 10.19 PAY ITEM 10.21 </div> <div style="font-size: 2em; text-align: center;">Level 4</div> </div>				Are all sample containers received intact? (X) Yes () No Comments: _____			
Rad Packet: _____		Non-Rad Packet: _____						Do the labels agree with this form? (X) Yes () No Comments: _____			
Client Services Representative: _____								Was a Material Clearance Tag submitted? (X) Yes () No Comments: _____			
Will these analyses be performed under a signed SOW? () YES () NO If so, do analyses entered here agree with the SOW? () YES () NO () NA If not, identify the variation: _____ CSR initials indicating review and approval: _____ Date: _____											
ITEM	ID / DESCRIPTION	SAMPLING DATE	TIME	MATRIX							COMMENTS (Preservative, size/volume, MIB/MSD, special analysis, rad matrix code, count time, etc.)
0	320-SB-10	3/26/01	1:31	SOIL	X	X					1-250ml glass
1	320SB-11		1:41		X	X					
2	320SB-12		1:40		X	X					
3	320SB-13		1:50		X	X					IF asphalt is noted in samples do not
4	320SB-14		1:25		X	X					ANALYZE
5	320SB-15		1:30		X	X					sample asphalt
6	LAST ITEM										
7											
8											
9											
Transfer of samples submitted for analysis						Complete for samples shipped to an OFF-SITE Subcontract Laboratory NEL					
Sampled/Relinquished (Signature/Organization)		DATE / TIME		Received by (Signature/Organization)		Relinquished (BN Representative Signature)		DATE / TIME		Received (Counter & Tracking Info.)	
DANIEL R. BAKER		3/26/01 17:35		Wayne Johnson		Wayne Johnson		3/26/01 17:35		270000 54	
						Relinquished (Source & Tracking Info.)		DATE / TIME		Received (1st tier Subcontractor Rep)	
						Relinquished (1st tier Subcontractor Rep)		DATE / TIME		Received (2nd tier Subcontractor Rep)	

Distribution: Original - To be retained by laboratory performing final analysis
 Copy 1 - To be retained by laboratory performing initial analysis

Quantitation Report

(OT Reviewed)

Data File : C:\HPCHEM\2\DATA\010316.SEC\0316-29.D
Acq On : 16 Mar 2010 11:13 pm
Sample : L0103143-01
Misc : WATER SAMPLE
IntFile : events.e
Quant Time: Mar 20 9:48 2001

Vial: 24
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Octacosane	23.26	6936943	0.103 mg/mlm
2) H Gasoline	11.70	1270860	0.178 mg/ml
3) H Diesel	21.61	17221443	0.262 mg/ml

ND

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010316.SEC\0316-29.D
 Acq On : 16 Mar 2010 11:13 pm
 Sample : L0103143-01
 Misc : WATER SAMPLE
 IntFile : events.e
 Quant Time: Mar 20 9:48 2001

Vial: 24
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

2.D TP0101R2.M

Tue Mar 20 09:52:52 2001

Quantitation Report

(00 Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-53.D
 Acq On : 21 Mar 20101 8:10 am
 Sample : L0103143-02
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 8:56 2001

Vial: 15
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
.) H Oil	28.53	378982143	5.362 <u>0.120</u> 5.242

$$\frac{5.242 \times 1.0}{30.01} \times 1000 = 175 = 180$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-53.D
Acq On : 21 Mar 2010 8:10 am
Sample : L0103143-02
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 8:56 2001

Vial: 15
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
Title : 7/12/99 Seymour REAR Oil Method
Last Update : Wed May 24 09:21:09 2000
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

(PS Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-10.D
 Acq On : 20 Mar 2010 1:44 pm
 Sample : L0103143-03
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 20 14:34 2001

Vial: 4
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Fri Jan 05 08:51:13 2001
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound		R.T.	Response	Conc Units

Target Compounds				
1)	Octacosane			
2) H	Gasoline	23.15	7525127	0.109 mg/mlm
3) H	Diesel	10.33	3190761	N.D. mg/ml
		21.15	33523019	N.D. mg/ml

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-10.D
Acq On : 20 Mar 2010 1:44 pm

Sample : L0103143-03

Misc : SOIL SAMPLE

IntFile : events.e

Quant Time: Mar 20 14:34 2001

Vial: 4

Operator: CCS

Inst : Seymour

Multiplr: 1.00

Quant Results File: TP0101F1.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101F1.M (Chemstation Integrator)

Title : 6/21/99 Seymour Front TPH

Last Update : Fri Jan 05 08:51:13 2001

Response via : Multiple Level Calibration

DataAcq Meth : TP9907R1.M

Volume Inj. :

Signal Phase :

Signal Info :

Quantitation Report

(QA Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-18.D
 Acq On : 20 Mar 2010 4:57 pm
 Sample : L0103143-04
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 7:54 2001

Vial: 12
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
.) H Oil	27.30	156382048	1.954 0.074 <u>1.000</u>

$$\frac{1.880 \times 1.0}{30.01} \times 1000 = 63$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-18.D
 Acq On : 20 Mar 2010 4:57 pm
 Sample : L0103143-04
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 7:54 2001

Vial: 12
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Quantitation Report

(m Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-16.D
 Acq On : 20 Mar 20101 4:06 pm
 Sample : L0103143-05
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 7:57 2001

Vial: 10
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	27.30	109877819	1.126 0.102 <u>1.024</u>

$$\frac{1.024 \times 1.0}{30.01} \times 1000 = 34$$

ND
 for
 oil

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-16.D
 Acq On : 20 Mar 2010 4:06 pm
 Sample : L0103143-05
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 7:57 2001

Vial: 10
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

010012F4.M

Wed Mar 21 17:58:05 2001

PAGE 1

Quantitation Report (OT Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-17.D
 Acq On : 20 Mar 2010 4:57 pm
 Sample : L0103143-06
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 8:01 2001

Vial: 11
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	28.53	76343165	0.422

ND

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-17.D
 Acq On : 20 Mar 2010 4:57 pm
 Sample : L0103143-06
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 8:01 2001

Vial: 11
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

7.D OL0101R1.M

Wed Mar 21 08:01:45 2001

Quantitation Report

(PT Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-17.D
Acq On : 20 Mar 2010 4:57 pm

Vial: 11

Sample : L0103143-06

Operator: CCS

Misc : SOIL SAMPLE

Inst : Seymour

IntFile : events.e

Multiplr: 1.00

Quant Time: Mar 21 9:00 2001 Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH

Last Update : Wed Jan 10 15:10:47 2001

Response via : Initial Calibration

DataAcq Meth : TP9907R1.M

Volume Inj. :

Signal Phase :

Signal Info :

Compound		R.T.	Response	Conc Units

Target Compounds				
1)	Octacosane			
2) H	Gasoline	23.37	7461677	0.111 mg/mlm
3) H	Diesel	11.70	918199	0.167 mg/ml
		21.61	37848702	0.564 mg/ml <i>ND</i>

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-17.D
Acq On : 20 Mar 2010 4:57 pm
Samp : L0103143-06
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 8:00 2001

Vial: 11
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Wed Mar 21 06:05:04 2001

Quantitation Report (QC Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-19.D
Acq On : 20 Mar 2010 5:48 pm
Sample : L0103143-07
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 8:04 2001

Vial: 13
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
Title : 7/12/99 Seymour REAR Oil Method
Last Update : Wed May 24 09:21:09 2000
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	28.53	112905186	1.019 0.103 <u>0.916</u>

$$\frac{0.916 \times 1.0}{30.02} \times 1000 = 30.5$$

ND
for oil

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-19.D
 Acq On : 20 Mar 2010 5:48 pm
 Sample : L0103143-07
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 8:04 2001

Vial: 13
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

9.D OL0101R1.M

Wed Mar 21 08:04:36 2001

Page

Quantitation Report

(C7 Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-56.D
 Acq On : 21 Mar 20101 9:01 am
 Sample : L0103143-08
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 9:46 2001

Vial: 16
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	27.30	154044841	1.912 <u>0.101</u>

$$\frac{1.803 \times 1.0}{30.04} \times 1000 = 60$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-56.D
 Acq On : 21 Mar 2010 9:01 am
 Sample : L0103143-08
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 9:46 2001

Vial: 16
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

-56.D OL0012F4.M

Wed Mar 21 09:47:06 2001

Quantitation Report (Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-57.D
Acq On : 21 Mar 2010 9:52 am

Vial: 17

Sample : L0103143-09

Operator: CCS

Misc : SOIL SAMPLE

Inst : Seymour

IntFile : events.e

Multiplr: 1.00

Quant Time: Mar 21 10:40 2001 Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
Title : 7/12/99 Seymour REAR Oil Method

Last Update : Wed May 24 09:21:09 2000

Response via : Initial Calibration

DataAcq Meth : TP9907R1.M

Volume Inj. :

Signal Phase :

Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	28.53	433351114	6.250 0.061 <u>6.189</u>

$$\frac{6.189 \times 1.0}{29.96} \times 1000 = 207 = 210$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-57.D
Acq On : 21 Mar 2010 9:52 am
Sample : L0103143-09
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 10:40 2001

Vial: 17
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: OLC0101R1.RES
Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
Title : 7/12/99 Seymour REAR Oil Method
Last Update : Wed May 24 09:21:09 2000
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

(~~23~~ Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-58.D
Acq On : 21 Mar 2010 9:52 am
Sample : L0103143-10
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 10:38 2001

Vial: 18
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
Title : 6/7/99 Seymour Front Oil Method
Last Update : Fri Dec 22 11:18:05 2000
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	27.30	587267465	9.758 <u>0.095</u> 9.663

$$\frac{9.663 \times 1.0}{30.01} \times 1000 = 322 = 320$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-58.D
 Acq On : 21 Mar 2010 9:52 am
 Sample : L0103143-10
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 10:38 2001

Vial: 18
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

01.D OL0012F4.M

Wed Mar 21 10:38:25 2001

Quantitation Report (OT Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-59.D
 Acq On : 21 Mar 2010 10:43 am
 Sample : L0103143-11
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 11:28 2001

Vial: 19
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) H Oil	28.53	765368605	11.670 0.080 11.590

$$\frac{11.590 \times 1.0}{30.04} \times 1000 = 385.8 = 390$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-59.D
 Acq On : 21 Mar 2010 10:43 am
 Sample : L0103143-11
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 11:28 2001

Vial: 19
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0101R1.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0101R1.M (Chemstation Integrator)
 Title : 7/12/99 Seymour REAR Oil Method
 Last Update : Wed May 24 09:21:09 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Wed Mar 21 11:28:42 2001

Quantitation Report

(CS Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-20.D
Acq On : 20 Mar 2010 5:48 pm
Sample : L0103143-12
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 7:57 2001

Vial: 14
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
Title : 6/7/99 Seymour Front Oil Method
Last Update : Fri Dec 22 11:18:05 2000
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) H Oil	27.30	82760461	0.644

ND
for
oil

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-20.D
Acq On : 20 Mar 2010 5:48 pm
Sample : L0103143-12
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 7:57 2001

Vial: 14
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
Title : 6/7/99 Seymour Fro.. Oil Method
Last Update : Fri Dec 22 11:18:05 2000
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

(Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-11.D
Acq On : 20 Mar 2010 2:35 pm
Sample : L0103143-13
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 20 15:13 2001

Vial: 7
Operator: CCS
Inst : Seymour
Multiplier: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound		R.T.	Response	Conc Units

Target Compounds				
1)	Octacosane	23.42	6296536	0.094 mg/mlm
2) H	Gasoline	11.70	465347	0.153 mg/ml
3) H	Diesel	21.61	15147843	0.232 mg/ml

WD

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-11.D
 Acq On : 20 Mar 2010 2:35 pm
 Sample : L0103143-13
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 20 15:13 2001

Vial: 7
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

11.D TP0101R2.M

Tue Mar 20 16:32:25 2001

Quantitation Report

(CZ Reviewed)

Data File : C:\HPCHEM\2\DATA\010320\0320-60.D
 Acq On : 21 Mar 2010 10:43 am
 Sample : L0103143-14
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 11:30 2001

Vial: 20
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
.) H Oil	27.30	483443333	7.855 <u>0.092</u> 7.763

$$\frac{7.763 \times 1.0}{30.02} \times 1000 = 258.6 = 260$$

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320\0320-60.D
 Acq On : 21 Mar 2010 10:43 am
 Sample : I0103143-14
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 11:30 2001

Vial: 20
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: OL0012F4.RES

Quant Method : C:\HPCHEM\2\METHODS\OL0012F4.M (Chemstation Integrator)
 Title : 6/7/99 Seymour Front Oil Method
 Last Update : Fri Dec 22 11:18:05 2000
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

0.D OL0012F4.M

Wed Mar 21 11:30:40 2001

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-13.D
 Acq On : 20 Mar 2010 3:17 pm
 Sample : L0103143-15
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 20 16:01 2001

Vial: 8
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Initial Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound		R.T.	Response	Conc Units

Target Compounds				
1)	Octacosane	23.38	6915938	0.103 mg/mlm -
2) H	Gasoline	11.70	312881	0.148 mg/ml
3) H	Diesel	21.61	16349528	0.250 mg/ml WD

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-13.D
Acq On : 20 Mar 2010 3:17 pm
Sample : L0103143-15

Misc : SOIL SAMPLE
IntFile : events.e

Quant Time: Mar 20 16:01 2001 Quant Results File: TP0101R2.RES

Vial: 8
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Multiple Level Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Quantitation Report

(Not Reviewed)

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-15.D
Acq On : 20 Mar 2010 4:06 pm
Sample : L0103143-16
Misc : SOIL SAMPLE
IntFile : events.e
Quant Time: Mar 21 7:59 2001

Vial: 9
Operator: CCS
Inst : Seymour
Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
Title : 6/21/99 Seymour Front TPH
Last Update : Wed Jan 10 15:10:47 2001
Response via : Initial Calibration
DataAcq Meth : TP9907R1.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Octacosane	23.40	6926564	0.103 mg/mlm
2) H Gasoline	11.70	1253688	0.178 mg/ml
3) H Diesel	21.61	17431596	0.266 mg/ml

RT Delta > 1/2 Window
-15.D TP0101R2.M

Wed Mar 21 08:05:01 2001

(m) = manual int.

Quantitation Report

Data File : C:\HPCHEM\2\DATA\010320.SEC\0320-15.D
 Acq On : 20 Mar 20101 4:06 pm
 Sample : L0103143-16
 Misc : SOIL SAMPLE
 IntFile : events.e
 Quant Time: Mar 21 7:59 2001

Vial: 9
 Operator: CCS
 Inst : Seymour
 Multiplr: 1.00

Quant Results File: TP0101R2.RES

Quant Method : C:\HPCHEM\2\METHODS\TP0101R2.M (Chemstation Integrator)
 Title : 6/21/99 Seymour Front TPH
 Last Update : Wed Jan 10 15:10:47 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : TP9907R1.M

Volume Inj. :
 Signal Phase :
 Signal Info :

TP0101R2.M

Wed Mar 21 08:03:02 2001

TIER I REVIEW

GENERAL INFORMATION

1. Project Name or Sample Delivery Group (SDG): *V1034*

2. Date Samples taken: *3/13/01*

SAMPLE NUMBER	DATE RECEIVED	DATE ANALYZED
<i>3205B-10</i>	<i>3/14/01</i>	<i>3/20</i>
<i>3205B-11</i>		<i>3/20</i>
<i>3205B-12</i>		<i>3/20</i>
<i>3205B-13</i>		<i>3/20</i>
<i>3205B-14</i>		<i>3/20</i>
<i>3205B-15</i>		<i>3/20</i>
<i>3205B-EB-1</i>		<i>3/16</i>
<i>3205B-1</i>		<i>3/20</i>
<i>3205B-2 MS/MSD</i>		<i>3/20</i>
<i>3205B-3</i>		<i>3/20</i>
<i>3205B-4</i>		<i>3/20</i>
<i>3205B-5</i>		<i>3/20</i>
<i>3205B-6</i>		<i>3/20</i>
<i>3205B-7</i>		<i>3/20</i>
<i>3205B-8</i>		<i>3/20</i>
<i>3205B-9</i>		<i>3/20</i>

3. Date of Review: 3/26/01

4. Chain of Custody (COC):

Completed? ☒ Yes ☐ No

Legible? ☒ Yes ☐ No

5. Is a cover letter/case narrative attached? ☒ Yes ☐ No

If 'yes,' has it been reviewed for significant problems? ☒ Yes ☐ No ☐ NA

Comments: none reported

6. Analyses requested (Attach COC, Sample Request Form, and lab data packet to this review):

☐ Total VOCs ☐ Total BNA ☐ Total Metals ☐ Radionuclides
☐ TCLP VOCs ☐ TCLP BNA ☐ TCLP Metals ☒ TPH
☐ PCBs ☐ Other:

7. Were all requested analyses performed on all samples? ☒ Yes ☐ No

8. Temperature on cooler: 2°C (parameters: 4°C ±2°) or ☐ NA

10. Refer to Table 1. Was the proper preservation used? ☒ Yes ☐ No ☐ NA

If 'no,' then explain:

TOTAL PETROLEUM HYDROCARBONS (TPH)

PARAMETER	EXTRACTION HOLD TIME	ANALYSIS HOLD TIME	DAYS HELD	PASS Y/N	SAMPLES NOT PASSING
Total TPH EPA Method 8015 Modified	Liquids - 14 days Soils - 14 days Oil - 14 days	NA	7	Y	
Total TPH EPA Method 8015 Modified	NA	Liquids - 40 days Soils - 40 days Oil - 40 days	0	Y	
Comments: <i>Method blank had only 10% surrogate recovery. all samples were OK.</i>					

Was TPH digestion done within the hold time limit? ☒ Yes ☐ No

Were analyses run within the hold time limit? ☒ Yes ☐ No

A. TPH reported as: ☒ mg/Kg or ☐ ug/Kg Other:

B. Hits above detection level found in LB, RBS, FB, RB, or other QA samples? ☐ Yes ☒ No
If 'yes,' explain:

C. Did laboratory report indicate any problems? ☐ Yes ☒ No
If 'yes,' explain:

SUMMARY

12. Laboratory log-in report check for completeness and errors. ☒ Yes ☐ No

13. Are all field forms are present and complete? ☒ Yes ☐ No

14. Does the report forms inventory include all CLP or LP-like forms? ☒ Yes ☐ No

15. Are the reporting levels at the appropriate level? ☒ Yes ☐ No

If 'no,' list the exceptions below:

SAMPLE ID	PARAMETER/ ANALYSIS	REPORTING LEVELS	ACTUAL LEVEL	COMMENTS

Was the sample count/type consistent with the COC? ☒ Yes ☐ No

Were the results reported for both the field and laboratory QC samples? ☒ Yes ☐ No

Is the analysis count/type consistent with the COC? ☒ Yes ☐ No

Was the correct sample matrix used for each sample? ☒ Yes ☐ No

Certificates of Analysis (COAs) checked for completeness? ☒ Yes ☐ No

Condition-upon-receipt variance form included? ☐ Yes ☐ No ☒ N/A

Did the deliverable meet the overall objectives of the project? ☒ Yes ☐ No

16. Are all signatures in place? On COC? ☒ Yes ☐ No On Data pkg.? ☒ Yes ☐ No

17. Explanation for any problems:

18. Overall Comments:

19. Reviewed by:

Kraig Rugg

Date:

3/26/01

Signature

20. Task Manager or TPO

Date:

Signature

APPENDIX E

COMMENT REVIEW DOCUMENTATION

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DOCUMENT REVIEW SHEET

1. Document Title/Number: Draft Closure Report for Corrective Action Unit 230: Area 22 Sewage Lagoons and Corrective Action Unit 320: Area 22 Desert Rock Airport Strainer Box, Nevada Test Site, Nevada

2. Document Date: May 2001

3. Revision Number: 0

4. Originator/Organization: BN

5. Date Comments Due:

6. Reviewer/Organization: NDEP

7. Comment Number/ Location	8. Type	9. Comment	10. Comment Response	14. Accept
1. Executive Summary, page x, second paragraph	M	"...Therefore the National Nuclear Security Administration Nevada Operations..." Add the acronym (NNSA/NV) here.	The Executive Summary is considered a "stand alone" document. Since the phrase "National Nuclear Security Administration Nevada Operations Office" appears only once in the Executive Summary, an acronym is not required.	N

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