Nevada
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DOE/NV--1194

National Nuclear Security Administration

Closure Report for Corrective Action Unit 516: Septic Systems and Discharge Points Nevada Test Site, Nevada

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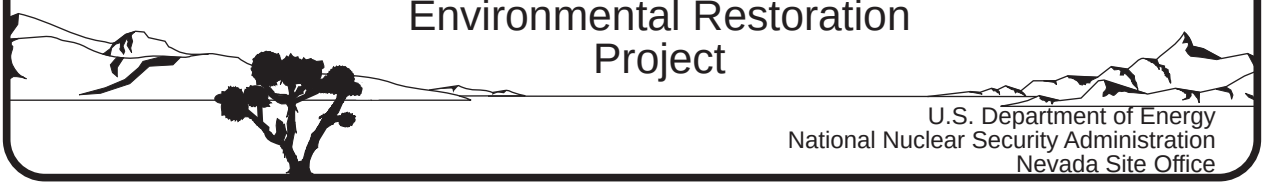

Environmental Restoration
Project

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office

DISCLAIMER

DOE/NV--1194

CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 516:
SEPTIC SYSTEMS AND DISCHARGE POINTS
NEVADA TEST SITE, NEVADA

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Las Vegas, Nevada

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CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 516:
SEPTIC SYSTEMS AND DISCHARGE POINTS
NEVADA TEST SITE, NEVADA

Approved By: SIGNATURE APPROVED Date: 04/03/2007
Kevin J. Cabble,
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John B. Jones,
Acting Federal Project Director
Environmental Restoration Project

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ACRONYMS AND ABBREVIATIONS

BMP	best management practice
CADD	Corrective Action Decision Document
CAIP	Corrective Action Investigation Plan
CAP	Corrective Action Plan
CAS	Corrective Action Site
CAU	Corrective Action Unit
COC	contaminant of concern
CR	Closure Report
DOE	U.S. Department of Energy
DQO	data quality objective
DRO	diesel range organics
FFACO	*Federal Facility Agreement and Consent Order*
ft	foot (feet)
gal	gallon(s)
mg/kg	milligram(s) per kilogram
NDEP	Nevada Division of Environmental Protection
NEPA	*National Environmental Policy Act*
NNSA/NSO	U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office
NNSA/NV	U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office
NSTec	National Security Technologies, LLC
NTS	Nevada Test Site
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
TPH	total petroleum hydrocarbons
yd^3	cubic yard(s)

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EXECUTIVE SUMMARY

Corrective Action Unit (CAU) 516 is located in Areas 3, 6, and 22 of the Nevada Test Site. CAU 516 is listed in the *Federal Facility Agreement and Consent Order* of 1996 as Septic Systems and Discharge Points, and is comprised of six Corrective Action Sites (CASs):

- CAS 03-59-01, Bldg 3C-36 Septic System
- CAS 03-59-02, Bldg 3C-45 Septic System
- CAS 06-51-01, Sump and Piping
- CAS 06-51-02, Clay Pipe and Debris
- CAS 06-51-03, Clean Out Box and Piping
- CAS 22-19-04, Vehicle Decontamination Area

The Nevada Division of Environmental Protection (NDEP)-approved corrective action alternative for CASs 06-51-02 and 22-19-04 is no further action.

The NDEP-approved corrective action alternative for CASs 03-59-01, 03-59-02, 06-51-01, and 06-51-03 is clean closure. Closure activities included removing and disposing of total petroleum hydrocarbon (TPH)-impacted septic tank contents, septic tanks, distribution/clean out boxes, and piping.

CAU 516 was closed in accordance with the NDEP-approved CAU 516 Corrective Action Plan (CAP). The closure activities specified in the CAP were based on the recommendations presented in the CAU 516 Corrective Action Decision Document (U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office, 2004). This Closure Report documents CAU 516 closure activities.

During closure activities, approximately 186 tons of hydrocarbon waste in the form of TPH-impacted soil and debris, as well as 89 tons of construction debris, were generated and managed and disposed of appropriately. Waste minimization techniques, such as field screening of soil samples and the utilization of laboratory analysis to characterize and classify waste streams, were employed during the performance of closure work.

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1.0 INTRODUCTION

Corrective Action Unit (CAU) 516 is listed in Appendix III of the *Federal Facility Agreement and Consent Order* (FFACO) of 1996, an agreement between the U.S. Department of Energy (DOE), the U.S. Department of Defense, and the state of Nevada, as Septic Systems and Discharge Points. CAU 516 consists of six Corrective Action Sites (CASs) located in Areas 3, 6, and 22 of the Nevada Test Site (NTS), which is located approximately 65 miles northwest of Las Vegas, Nevada. Figure 1 depicts the approximate CAS locations within the NTS. Specifically, CAU 516 includes:

- CAS 03-59-01, Bldg 3C-36 Septic System
- CAS 03-59-02, Bldg 3C-45 Septic System
- CAS 06-51-01, Sump and Piping
- CAS 06-51-02, Clay Pipe and Debris
- CAS 06-51-03, Clean Out Box and Piping
- CAS 22-19-04, Vehicle Decontamination Area

The six sites reportedly included soil, liquid, and/or debris that exceeded clean-up criteria for total petroleum hydrocarbons (TPH). Historical details of the CASs are provided in the CAU 516 Corrective Action Investigation Plan (CAIP) (U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office [NNSA/NSO], 2003) and the CAU 516 Corrective Action Decision Document (CADD) (NNSA/NSO, 2004).

The corrective actions described in the CAU 516 Corrective Action Plan (CAP) (NNSA/NSO, 2005) were implemented from August 2006 through December 2006. This Closure Report (CR) has been prepared for CAU 516 in accordance with the FFACO and the Nevada Division of Environmental Protection (NDEP)-approved CAP.

1.1 PURPOSE

The purpose of this CR is to document that the closure of CAU 516 complied with the NDEP-approved CAP closure requirements (NNSA/NSO, 2005). The closure activities specified in the CAP were based on the approved corrective action alternatives presented in the CAU 516 CADD (NNSA/NSO, 2004).

1.2 SCOPE

The approved closure strategy for CAU 516 was specified in the CAU 516 CADD (NNSA/NSO, 2004). The approved closure alternative for CASs 06-51-02 and 22-19-04 was no further action. The approved alternative for CASs 03-59-01, 03-59-02, 06-51-01, and 06-51-03 was clean closure. The strategy for implementing this closure was presented in the CAU 516 CAP (NNSA/NSO, 2005).

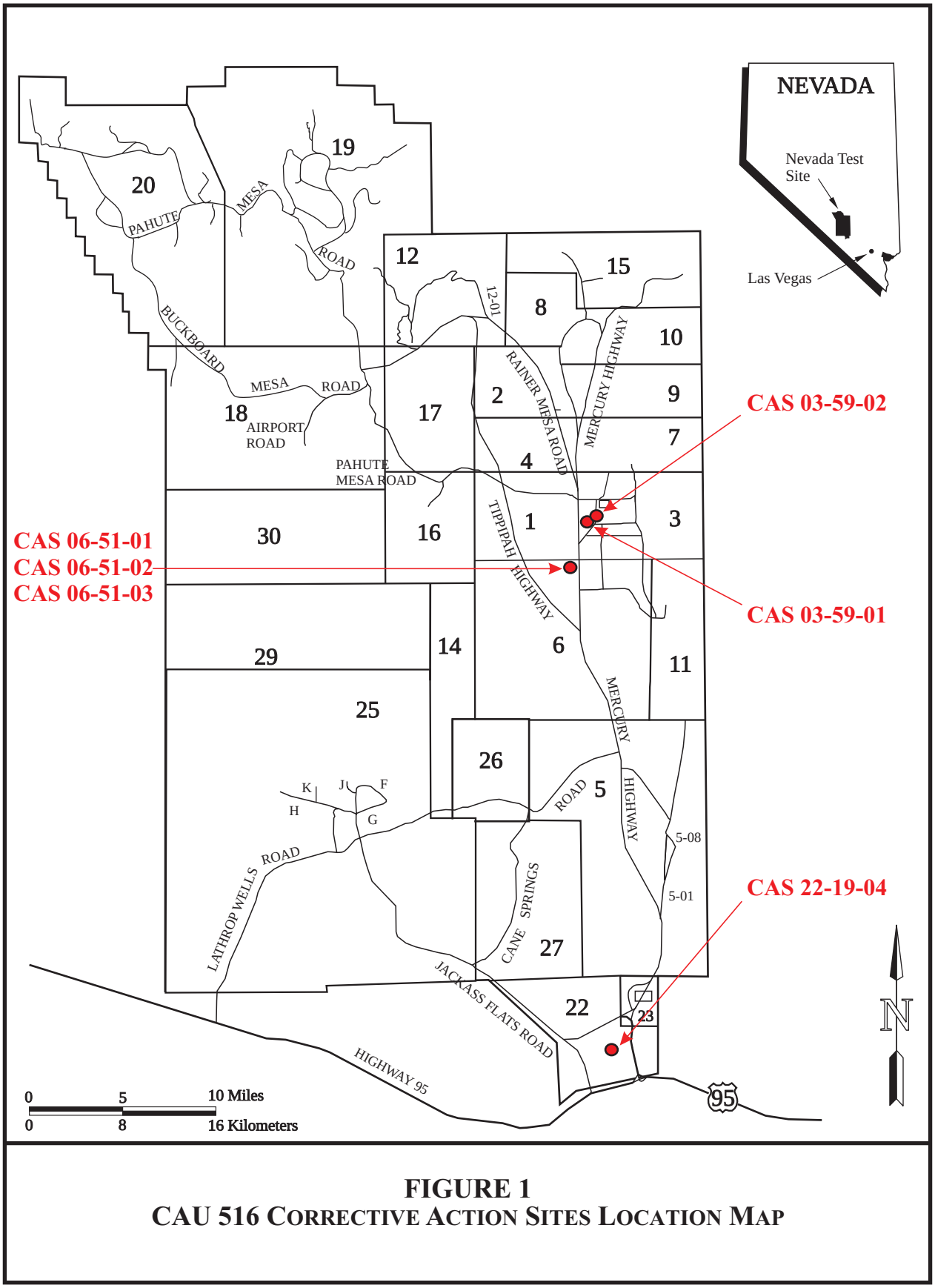

FIGURE 1
CAU 516 CORRECTIVE ACTION SITES LOCATION MAP

Closure activities included:

- Removing, solidifying, and disposing of TPH-impacted septic tank contents, and removing and disposing of the septic tank, at CAS 03-59-01
- Removing and disposing of a distribution box and 10 feet (ft) of piping at CAS 03-59-01 as a best management practice (BMP)
- Removing, solidifying, and disposing of TPH-impacted septic tank contents, and removing and disposing of the septic tank, at CAS 03-59-02
- Excavating and removing two dry wells at CAS 03-59-02 as a BMP
- Removing and disposing of TPH-impacted piping at CAS 06-51-01
- Removing and disposing of a clean out box, TPH-impacted clean out box contents, and associated piping at CAS 06-51-03
- Characterizing, excavating, and removing a 55-gallon (gal) sump discovered during fieldwork at CAS 06-51-03 as a BMP
- Collecting verification samples to verify clean-up criteria
- Backfilling and grading excavations to surrounding topographic contours

Detailed site-specific closure activities are presented in Section 2.0 of this report.

Data quality objectives (DQOs) were developed for the CAU 516 site characterization (NNSA/NSO, 2003) and are included in Appendix A of this report. Site closure was verified through inspections, sampling, observations, and documentation of waste disposal.

1.3 CLOSURE REPORT CONTENTS

This CR includes the following sections:

- Section 1.0, "Introduction," presents the purpose, general scope, and an overview of report contents.
- Section 2.0, "Closure Activities," describes the corrective actions completed, any deviations from the CAP, and the general closure schedule.
- Section 3.0, "Waste Disposition," describes the wastes generated and documents waste disposition.
- Section 4.0, "Closure Verification Results," describes the testing, inspections, and other measures used to confirm the completion of the corrective actions and the quality of results.
- Section 5.0, "Conclusions and Recommendations," describes the results, completion of implementation of the CAP, and the post-closure monitoring requirements.
- Section 6.0, "References," lists the supporting documents.

The appendices include relevant supporting documents:

- Appendix A, "Data Quality Objectives," presents the DQOs developed in the CAU 516 CAIP (NNSA/NSO, 2003).
- Appendix B, "Analytical Results," presents the summary analytical results for the soil verification samples collected at CASs 03-59-01, 03-59-02, 06-51-01, and 06-51-03.
- Appendix C, "Waste Disposition Documentation," contains copies of the load verification forms and recycling forms.
- Appendix D, "Field Photographs," contains photographs of the CASs taken prior to, during, and after closure activities.
- Appendix E, "*National Environmental Policy Act* (NEPA) Environmental Evaluation Checklist," includes the checklist evaluating the environmental impact of site closure activities.

2.0 CLOSURE ACTIVITIES

This section of the CR details the specific activities involved in the closure of CAU 516.

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

Closure of CAU 516 was completed by the National Security Technologies, LLC (NSTec) Environmental Restoration Project using the approved CAP for CAU 516 (NNSA/NSO, 2005). The CAP was based on the recommendations presented in the CAU 516 CADD (NNSA/NSO, 2004).

Prior to beginning closure activities, the following pre-field activities were completed:

- Preparation of a NEPA Checklist
- Preparation of a Field Management Plan for CAU 516 (NSTec, 2006a)
- Preparation of a Site-Specific Health And Safety Plan for closure activities at CAU 516, (NSTec, 2006b)
- Preparation of the work packages to control work
- Preparation of Real Estate/Operations Permits to authorize the work
- Utility surveys to ensure that all fieldwork would be conducted safely and without disruption of NTS infrastructure

Closure activities began on August 4, 2006, and were completed on December 14, 2006. The following sections detail the closure activities implemented for CAU 516.

2.1.1 CAS 03-59-01, Bldg 3C-36 Septic System

Figure 2 shows the site plan for CAS 03-59-01, which is located in the former Area 3 Camp south of the 3-01 Road and west of the Blowout Preventer Shop bay structure. The site consisted of a septic tank, distribution box, leachfield, and associated piping that supported the operation of Building 3C-36. Results of the site characterization reported TPH diesel range organics (DRO) as the only contaminant of concern (COC), which were present in the material contained within the septic tank (NNSA/NSO, 2004). In total, the influent and effluent chambers of the septic tank contained approximately 1,500 gal of liquid and solid waste.

The CAS was clean closed by removing and solidifying the septic tank contents, removing the concrete septic tank, and disposing of the tank and tank contents at the Area 6 Hydrocarbon Landfill. As a BMP, the distribution box and 10 ft of associated piping were also removed and disposed of at the Area 9 U10c Sanitary Landfill as construction debris. Field screening was performed on samples taken from the bottom and base of the sidewalls of the excavation. Additional material was removed accordingly. Upon the receipt of verification sample analytical results below action levels (see Section 4.0), the excavation was backfilled with native material from an approved borrow source and graded to the approximate surrounding topographic contours.

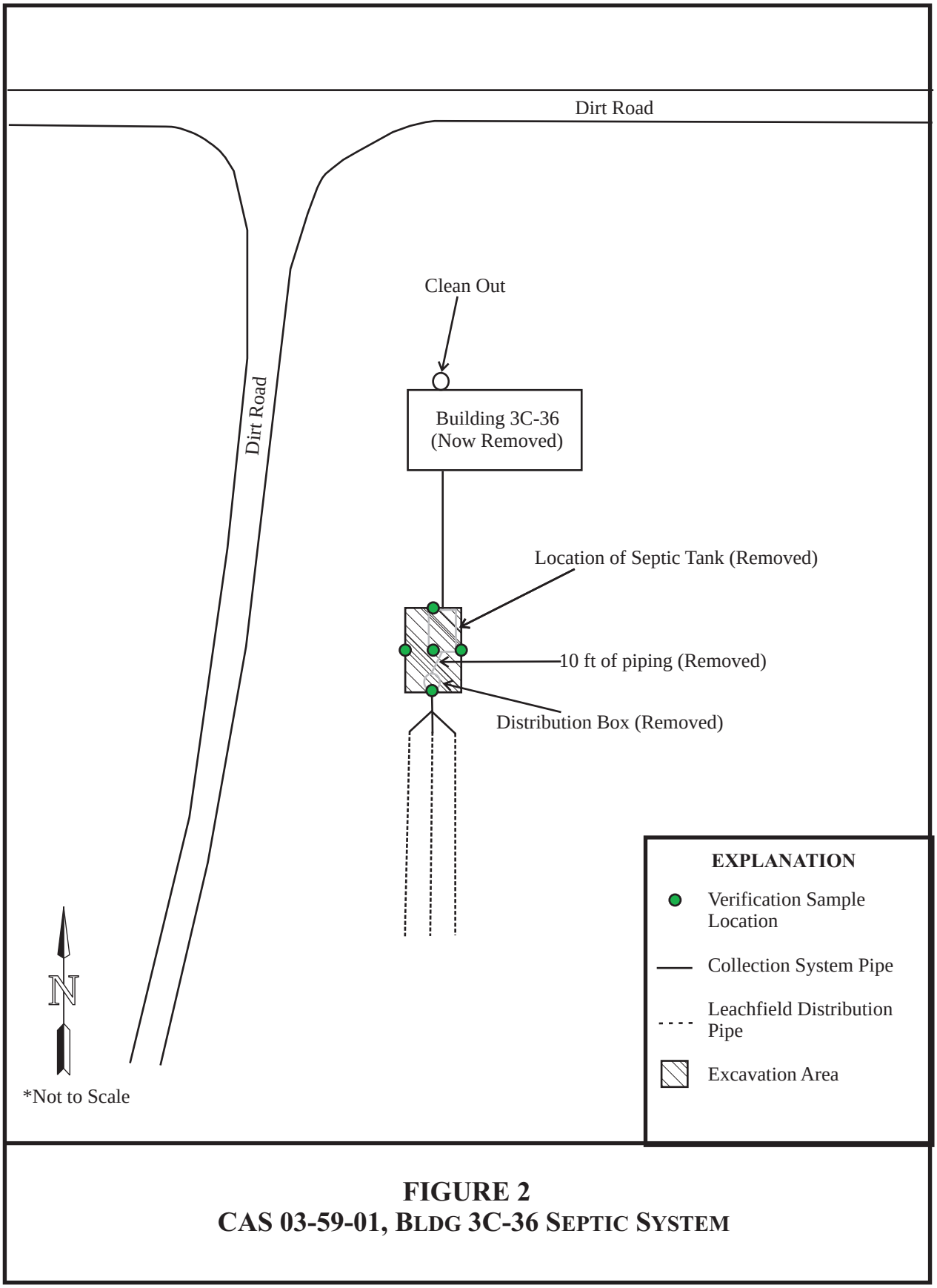

FIGURE 2
CAS 03-59-01, BLDG 3C-36 SEPTIC SYSTEM

2.1.2 CAS 03-59-02, Bldg 3C-45 Septic System

Figure 3 shows the site plan for CAS 03-59-02, which is located in the former Area 3 Camp north of Road 3-01 and west of Angle Road. The site consisted of a septic tank, distribution box, leachfield, two dry wells, and associated piping that serviced the former Building 3C-45 and adjacent photo processing laboratory. The influent and effluent portions of the septic tank together contained approximately 700 gal of liquid and solid waste. Characterization results reported TPH-DRO contamination above the action level in the solid and liquid phases of the material contained within the septic tank, as well as gross alpha and beta radiation exceeding the recommended levels for sewage lagoon disposal within the liquid phase (NNSA/NSO, 2004). Additional characterization sampling performed prior to the onset of fieldwork confirmed that the solid and liquid material within the septic tank did not constitute a radiological or hazardous waste. Analytical results are available in Appendix B of this report.

This CAS was clean closed by solidifying and removing the septic tank contents, removing the concrete septic tank, and disposing of the tank and tank contents at the NTS Area 6 Hydrocarbon Landfill. As a BMP, the two dry wells were excavated and disposed of at the Area 9 U10c Sanitary Landfill. Prior to disposal, additional waste characterization sampling was performed to verify the absence of silver from the drywell associated with the photo processing plant. Field screening was performed on samples from the bottom and base of the sidewalls of the septic tank excavation, and additional material was excavated as necessary. Upon the return of verification sample analytical results below action levels (see Section 4.0), the excavated area was backfilled with native material from an approved borrow source and graded to the approximate surrounding topographic contours.

2.1.3 CAS 06-51-01, Sump and Piping, and CAS 06-51-03, Clean Out Box and Piping

Figure 4 shows the site plan for CASs 06-51-01 and 06-51-03. These sites, which were separate portions of the underground waste disposal infrastructure adjacent to and in support of Building 660, included an 82-ft pipe segment running north of the former location of the Building 660 septic tank and a clean out box and associated piping adjacent to the Building 660 foundation. Both the pipe segment and the clean out box and associated piping were reportedly impacted with TPH-DRO. Prior to disposal, additional waste characterization sampling was performed on the CAS 06-51-01 pipe to verify the absence of mercury above action levels. Analytical results are available in Appendix B of this report.

These CASs were clean closed by exposing and removing the 82-ft pipe segment, the clean out box, 0.5 cubic yards (yd^3) of TPH-impacted soil from the clean out box, and associated piping and disposing of the material at the Area 6 Hydrocarbon Landfill. Additionally, a 55-gal sump was encountered during the removal of the clean out box piping. As a BMP, the sump and 1 yd^3 of soil was characterized and disposed of as hydrocarbon waste at the Area 6 Hydrocarbon Landfill. Clean closure of the BMP sump excavation was verified by field screening. Field screening was performed on samples from the bottom and base of the sidewalls of the sump, pipe, and clean out box excavations, and additional material was excavated as necessary. Verification samples were taken from the pipe and clean out box excavations (see Section 4.0), and upon the receipt of analytical results below action levels, the areas were backfilled with clean soil from an approved borrow source and contoured to the surrounding topographic grade.

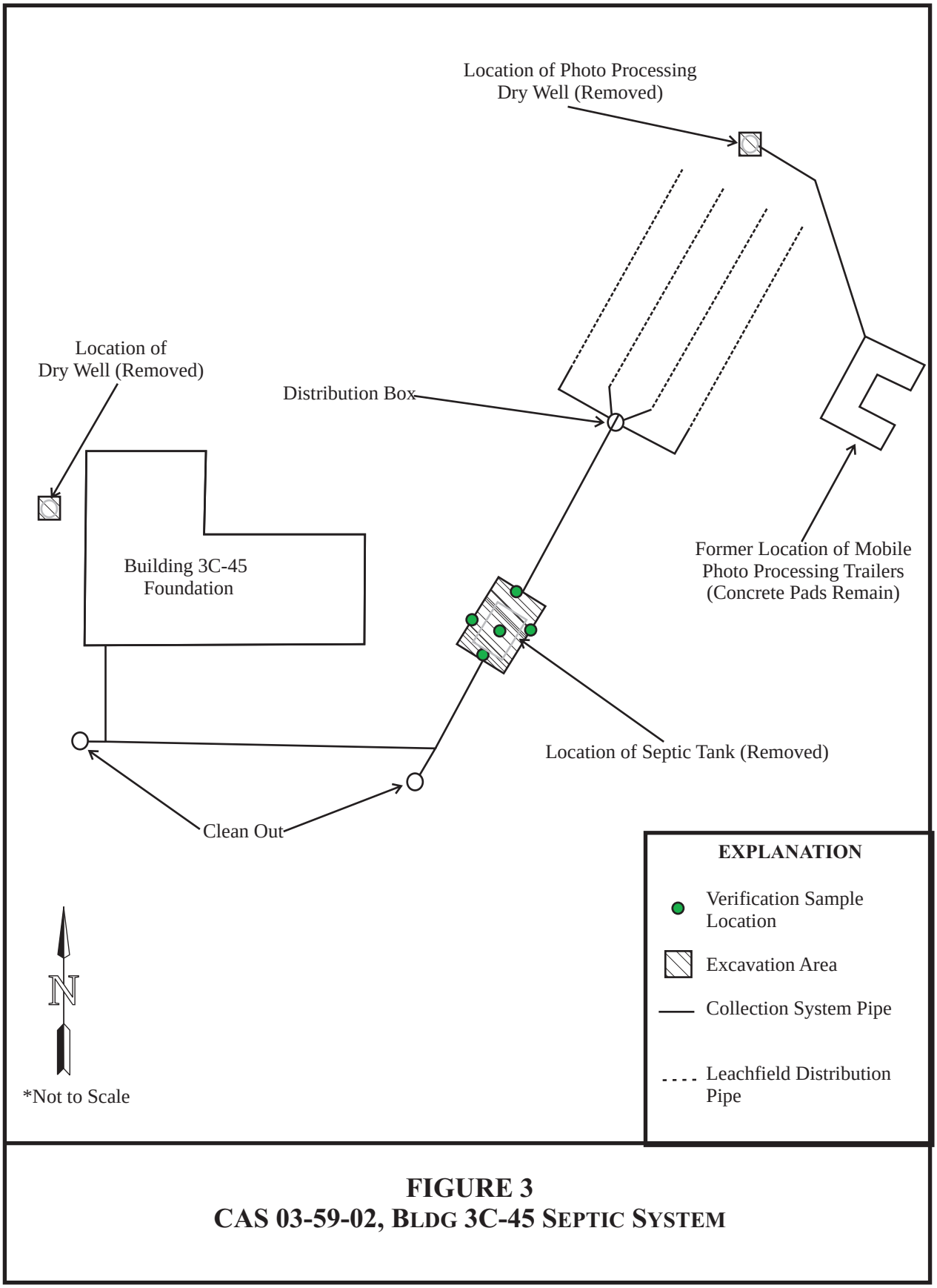

FIGURE 3
CAS 03-59-02, BLDG 3C-45 SEPTIC SYSTEM

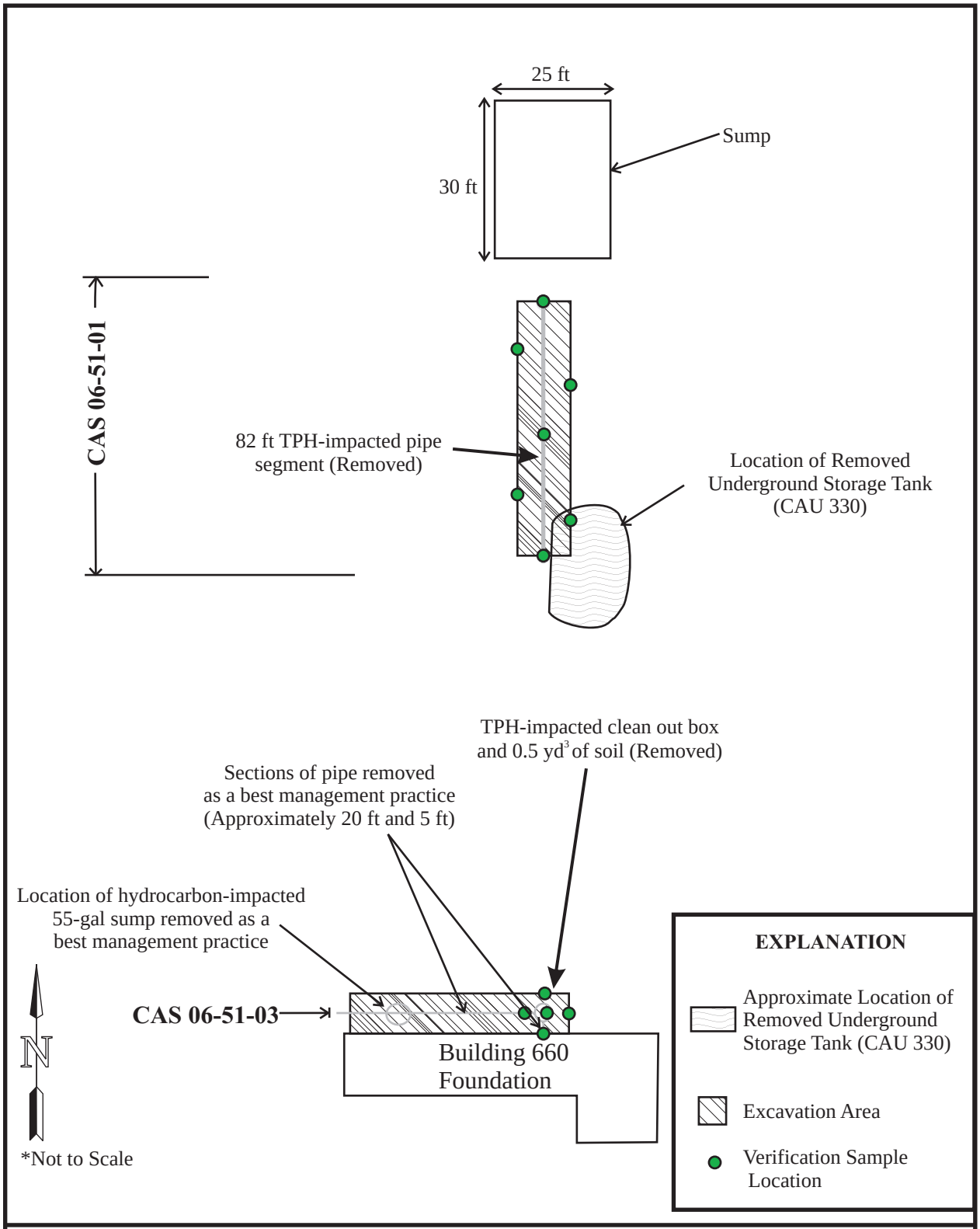

FIGURE 4
CAS 06-51-01, SUMP AND PIPING, AND
CAS 06-51-03, CLEAN OUT BOX AND PIPING

2.2 DEVIATIONS FROM CORRECTIVE ACTION PLAN AS APPROVED

A previously unidentified 55-gal sump was uncovered during excavation activities at CAS 06-51-03. Deviations from the approved CAP performed during the implementation of the CAU 516 CAP include the characterization, excavation, and disposal of approximately 1 yd^3 of soil around the sump and the 55-gal sump itself as a BMP. Sampling results confirmed that the sump was TPH-impacted, and field screening results obtained from the base and sidewalls of the excavation confirmed complete removal of TPH contamination and verified clean closure prior to backfilling.

No other deviations from the approved CAP were necessary during field activities.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

The completed closure field activities schedule is presented in Table 1.

TABLE 1. CAU 516 CLOSURE SCHEDULE

SITE	DATE CORRECTIVE ACTIONS COMPLETED*
CAS 03-59-01	December 10, 2006
CAS 03-59-02	December 10, 2006
CAS 06-51-01	December 13, 2006
CAS 06-51-03	December 14, 2006

Notes: * Corrective action activities do not include post-closure photo documentation site visits. Post-closure site visits were completed December 14, 2006.

2.4 SITE PLAN / SURVEY PLAT

No engineering "as-built" drawings were required for closure activities conducted at CAU 516.

3.0 WASTE DISPOSITION

Waste generated during CAU 516 closure activities included hydrocarbon waste and sanitary waste/construction debris. All waste was managed according to federal and state regulations, DOE orders, and NSTec procedures. Some waste required sampling to verify the appropriate waste disposition. All waste was containerized, as needed, for proper disposal in an approved landfill. Table 2 summarizes disposition of each waste stream by CAS. Waste disposition documentation is included in Appendix C of this report.

TABLE 2. DISPOSITION OF WASTE

CAS	MATERIAL	WEIGHT ESTIMATE	DISPOSITION
03-59-01	TPH-impacted soil/debris	84 tons	NTS Area 6 Hydrocarbon Landfill
	Miscellaneous sanitary waste/ construction debris	10 tons	NTS Area 9 U10c Sanitary Landfill
03-59-02	TPH-impacted soil/debris	101 tons	NTS Area 6 Hydrocarbon Landfill
	Miscellaneous sanitary waste/ construction debris	79 tons	NTS Area 9 U10c Sanitary Landfill
06-51-01/ 06-51-03	TPH-impacted soil/debris	1 ton	NTS Area 6 Hydrocarbon Landfill

3.1 WASTE MINIMIZATION

Industry standard waste minimization practices were applied throughout the course of field activities. These practices included:

- Using TPH field test kits to field screen for TPH contamination and allow for a better delineation of the extent of TPH contamination
- Using laboratory analysis to characterize and classify waste streams

3.2 HYDROCARBON WASTE

Approximately 186 tons of TPH-DRO-impacted soil and solidified liquid were removed and/or excavated from CASs 03-59-01, 03-59-02, 06-51-01, and 06-51-03 and were disposed of at the Area 6 Hydrocarbon Landfill. Waste disposal documentation is included in Appendix C of this report.

3.3 SANITARY WASTE

Approximately 89 tons of sanitary waste, such as sanitary trash, personal protective equipment, and construction debris, was disposed of at the Area 9 U10c Sanitary Landfill. Waste disposal documentation is included in Appendix C of this report.

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4.0 CLOSURE VERIFICATION RESULTS

Site closure was verified by the collection and analysis of verification samples, photographic documentation, and visual inspections.

At CAS 03-59-01, five verification samples and one blind duplicate sample were collected from the bottom and base of the sidewalls of the excavation (see Figure 2). Samples were collected on October 2, 2006, and were analyzed for TPH. Results were below action levels, verifying that the site was clean closed.

At CAS 03-59-02, five verification samples and one blind duplicate were collected from the bottom and base of the sidewalls of the excavation (see Figure 3). Samples were collected on September 27, 2006, and were analyzed for TPH. Results were below action levels, and the site was clean closed.

At CAS 06-51-01, seven verification samples were collected from the bottom and base of the sidewalls of the pipe excavation (see Figure 4). Samples were collected on November 28, 2006, and were analyzed for TPH. All results were below action levels, verifying that the excavated area is free of TPH contamination, and the site was clean closed.

At CAS 06-51-03, five verification samples were collected from the bottom and base of the sidewalls of the clean out box excavation on Novermber 28, 2006, and were analyzed for TPH to verify clean closure of the site. As a BMP, field screening was performed on soil taken from the sidewalls and base of the BMP 55-gal sump excavation (see Figure 4) to verify clean closure. All results were below action levels, verifying that the excavated area is free of TPH contamination, and the site was clean closed.

All samples were handled according to the *Industrial Sites Quality Assurance Project Plan* (QAPP) (U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office [NNSA/NV, 2002]). The samples were shipped under chain of custody to an approved offsite laboratory for analysis of TPH. Table 3 and Appendix B summarize the results. The analytical results for soil verification samples collected from the excavations at all CAU 516 CASs were below the action levels.

Critera for verification sampling and backfilling were provided in the approved CAU 516 CAP (NNSA/NSO, 2005).

TABLE 3. VERIFICATION SAMPLE ANALYTICAL RESULTS

SAMPLE ID	DATE COLLECTED	RESULTS
		TPH-DRO (mg/kg)
		Action Level = 100.0
035901-V1	10/02/2006	13.1
035901-V2	10/02/2006	7.3
035901-V3	10/02/2006	7.6
035901-V4	10/02/2006	6.8
035901-V5	10/02/2006	7.5
035901-V6 (Blind duplicate of 035901-V1)	10/02/2006	12.2
035902-V1	09/27/2006	12.9
035902-V2	09/27/2006	12
035902-V3	09/27/2006	7.1
035902-V4	09/27/2006	11.8
035902-V5	09/27/2006	5.8
035902-V6 (Blind duplicate of 035902-V2)	09/27/2006	12.6
065101-V1	11/28/2006	5.9
065101-V2	11/28/2006	5.1
065101-V3	11/28/2006	6.0
065101-V4	11/28/2006	50
065101-V5	11/28/2006	5.9
065101-V6	11/28/2006	5.5
065101-V7	11/28/2006	5.4
065103-V1	11/28/2006	12.8
065103-V2	11/28/2006	5.4
065103-V3	11/28/2006	9.4
065103-V4	11/28/2006	12
065103-V5	11/28/2006	18.5

Notes:

mg/kg = milligrams per kilogram

4.1 DATA QUALITY ASSESSMENT

Accurate and defensible analytical data were collected to verify that wastes were properly characterized, managed, and disposed, and to verify that clean-up criteria were met. The following sections describe the quality assurance/quality control (QA/QC) procedures, data validation process, and reconciliation of the conceptual site model with the observations and findings during the closure activities.

4.1.1 Quality Assurance/Quality Control Procedures

Detailed information about the QA/QC program can be found in the Industrial Sites QAPP (NNSA/NV, 2002). One blind duplicate verification sample per twenty samples or one blind duplicate sample per sampling event was collected and submitted blind to the laboratory for analysis. In addition, one equipment rinsate sample was collected per sampling event and submitted for analysis. Results showed no contamination resulted from the decontaminated sampling equipment. Analytical results for waste characterization samples were validated by the laboratory with respect to the data quality indicators. Matrix spikes, matrix spike duplicates, recoveries, and other standard QA/QC procedures were followed. The laboratory reports and validation reports indicate no problems with the usability of the data.

4.1.2 Data Validation

Data validation was performed according to the Industrial Sites QAPP (NNSA/NV, 2002). All sample data were internally validated using Tier I criteria. No anomalies were discovered in the data that would discredit any of the waste classification or verification samples collected and analyzed for CAU 516. Summary laboratory QA/QC data for verification samples are presented in Appendix B of this report. The complete data set and verification reports are available on request. These data are maintained in NSTec project files located in the Environmental Restoration project offices at the NTS.

4.1.3 Conceptual Site Model

There were no discrepancies between the conceptual site model presented in the DQOs (Appendix A of this report) and that observed in the field.

4.2 USE RESTRICTIONS

The preferred closure alternatives for all CASs requiring remediation activities were no further action or clean closure, and as a result, no Use Restrictions were required or implemented during the closure of CAU 516.

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5.0 CONCLUSIONS AND RECOMMENDATIONS

CAU 516 was closed according to the FFACO and the NDEP-approved CAP for CAU 516 (NNSA/NSO, 2005). Closure of CAU 516 was accomplished by completing the following tasks:

- Removing, solidifying, and disposing of TPH-impacted septic tank contents, and removing and disposing of the septic tank, at CAS 03-59-01
- Removing and disposing of a distribution box and 10 ft of piping at CAS 03-59-01 as a BMP
- Removing, solidifying, and disposing of TPH-impacted septic tank contents, and removing and disposing of the septic tank, at CAS 03-59-02
- Excavating and removing two dry wells at CAS 03-59-02 as a BMP
- Removing and disposing of TPH-impacted piping at CAS 06-51-01
- Removing and disposing of a clean out box, TPH-impacted clean out box contents, and associated piping at CAS 06-51-03
- Characterizing, excavating, and removing a TPH-impacted 55-gal sump and surrounding soil discovered during fieldwork at CAS 06-51-03, which was clean closed as a BMP
- Collecting verification samples to verify clean-up criteria
- Backfilling and grading excavations to surrounding topographic contours

According to the CAU 516 CADD, no COCs were reported and no further action was taken at the following CASs (NNSA/NSO, 2004):

- CAS 06-51-02, Clay Pipe and Debris
- CAS 22-19-04, Vehicle Decontamination Area

5.1 POST-CLOSURE MONITORING REQUIREMENTS

5.1.1 Inspections

Since no Use Restrictions were implemented, no post-closure inspections are required for any CAU 516 CASs.

5.2 NOTICE OF COMPLETION

Based upon the completion of site activities, it is requested that a "Notice of Completion" be provided by NDEP for CAU 516. Upon closure approval, CAU 516 will be moved from Appendix III to Appendix IV, "Closed Corrective Action Units," of the FFACO.

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6.0 REFERENCES

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.

National Security Technologies. LLC, 2006a. *Field Management Plan for Corrective Action Unit 516: Septic Systems and Discharge Points, Nevada Test Site, Nevada.* Las Vegas, NV.

National Security Technologies. LLC, 2006b. *Site-Specific Site Health and Safety Plan for Corrective Action Unit 516: Septic Systems and Discharge Points, Nevada Test Site, Nevada.* Las Vegas, NV.

NNSA/NSO, see U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office.

NNSA/NV, see U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office.

NSTec, see National Security Technologies, LLC.

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APPENDIX A

DATA QUALITY OBJECTIVES*

* As previously published in the approved Corrective Action Investigation Plan for Corrective Action Unit 516: Septic Systems and Discharge Points, Nevada Test Site, Nevada, Rev. 0. DOE/NV--889. Las Vegas, NV.

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Appendix A.1

Data Quality Objectives

A.1 Data Quality Objectives Process

The DQO process is a seven-step strategic planning approach based on the scientific method that is used to prepare for site characterization data collection. The DQOs are designed to ensure that the data collected will provide sufficient and reliable information to identify, evaluate, and technically defend potentially viable corrective actions (i.e., no further action, closure in place, or clean closure). With the exception of CAS 06-51-02, existing information about the nature and extent of contamination at the CASs in CAU 516 is insufficient to evaluate and select preferred corrective actions; therefore, a corrective action investigation will be conducted.

The CAU 516 investigation will be based on DQOs developed by representatives of the NNSA/NSO. Corrective Action Site 06-51-02, Clay Pipe and Debris, does not require characterization, so the debris will be removed from the site during the field investigation. Therefore, this DQO process will not apply to CAS 06-51-02. The seven steps of the DQO process developed for the remaining CASs in CAU 516 and presented in Sections A.1.2 through A.1.8 were developed based on the CAS-specific information presented in Section A.1.1.

A.1.1 CAS-Specific Information

The five CASs addressed herein are located in Areas 3, 6, and 22 of the NTS as shown in Figure A.1-1. Two CASs are in Area 3, two CASs are in Area 6, and one CAS is in Area 22. The five CASs are:

- 03-59-01, Building 3C-36 Septic System
- 03-59-02, Building 3C-45 Septic System
- 06-51-01, Sump and Piping
- 06-51-03, Clean Out Box and Piping
- 22-19-04, Vehicle Decontamination Area

The COPCs specific to each CAS are described in the following CAS descriptions and listed in Table A.1-1. Critical COPCs are defined as those contaminants that are known or expected to be present within a CAS. Noncritical COPCs are defined as classes of contaminants (e.g., VOCs) that include all the analytes reported from the respective analytical methods that have PALs listed in Section A.1.4.2. If a COPC is detected in any sample at a concentration above a PAL, the COPCs

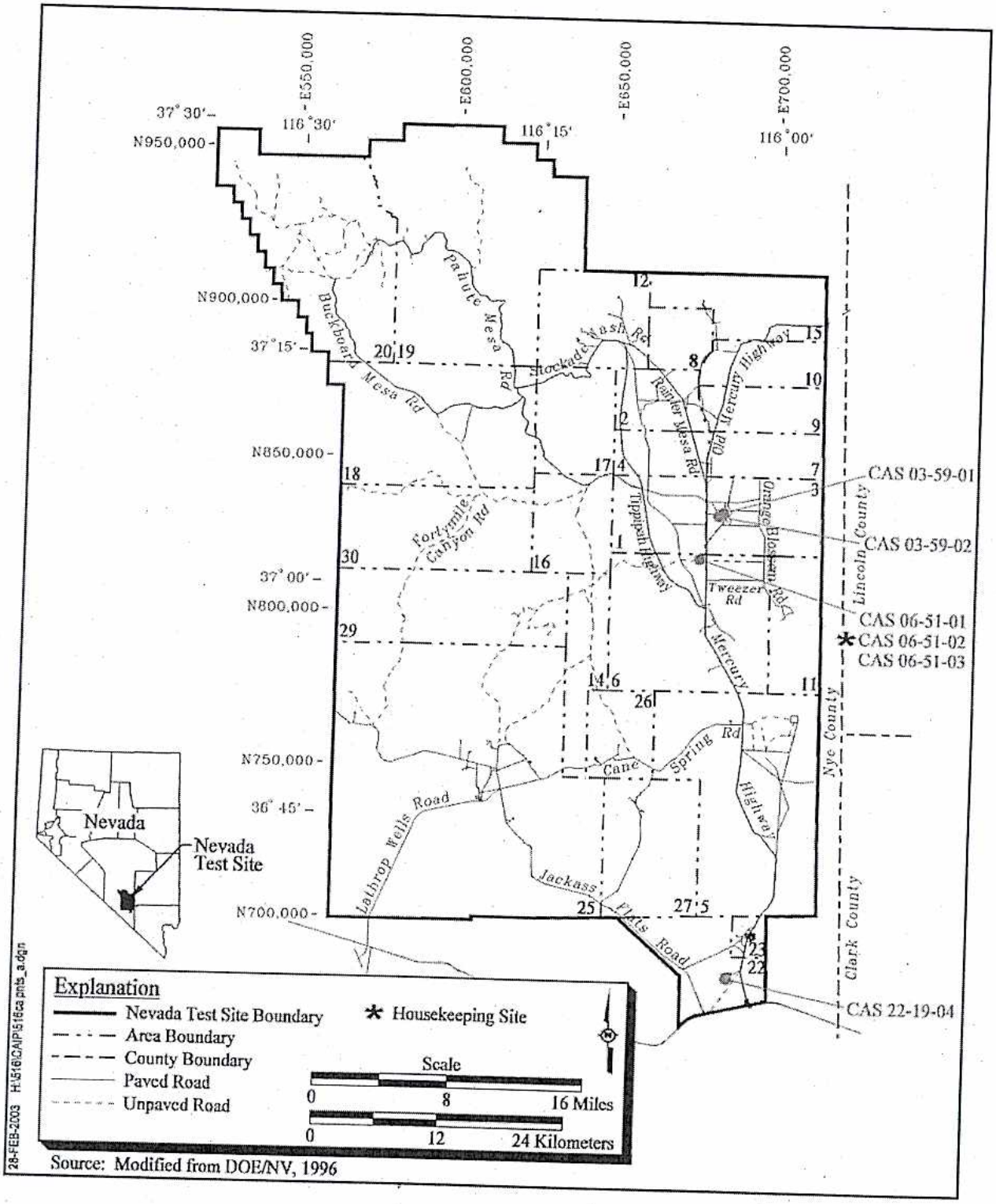


Figure A.1-1
Nevada Test Site and CAU 516 Location Map

Table A.1-1
Phase I Contaminants of Potential Concern Per CAS*

COPC	CAS 03-59-01	CAS 03-59-02		CAS 06-51-01	CAS 06-51-03	CAS 22-19-04
		Septic System and Dry Well	Photoprocessing Dry Well			
Organics						
VOCs	X	X	X	X	X	X
SVOCs	X	X	X	X	X	X
Hydroquinone	--	--	C	--	--	--
PCBs	X	X	X	X	X	X
Petroleum hydrocarbons [C_6 - C_{10}] gasoline-range	X	X	X	X	X	X
Petroleum hydrocarbons [C_{10} - C_{38}] diesel-range	X	X	X	X	X	X
Metals						
RCRA metals	X	X	C - silver X - others	X	X	X
Beryllium	X	X	X	X	X	X
Aluminum	--	--	C	--	--	--
Radionuclides						
Americium-241	--	--	--	C	C	--
Cesium-137	--	X	--	C	C	X
Strontium-90	--	X	--	C	C	X
Plutonium-238 and -239/240	--	X	--	C	C	X
Uranium-234, -235, -238	--	--	--	--	--	X

*Footnote:
-For those COPCs identified that include multiple parameters, the parameters with PALs will be evaluated.

C = Critical COPCs X = Noncritical COPCs -- = Not Applicable

will be identified as a COC. If a COC is identified, the CAS containing that COC will be further investigated to determine the extent of the contamination.

As discussed above, CAU 516 also includes CAS 06-51-02 located in Area 6. However, this site is not included in the DQO process because characterization data are not required to support the housekeeping action.

A.1.1.1 CAS 03-59-01, Building 3C-36 Septic System

Physical Setting and Operational History - This CAS is located in the former Area 3 Camp south of Road 3-01 and consists of a septic tank, leachfield, distribution box, and septic system piping (see Figure A.1-2). The septic tank has a volume of 1,200 gal and is believed to have been pumped and filled with concrete. The leachfield is located approximately 76 ft south of Building 3C-36 leachfield. The leachfield is approximately 60 by 30 ft and consists of three perforated 4-in. pipes. This septic system was connected to Building 3C-36, which contained seven offices, one blueprint room, one secretarial area, and one rest room that included one shower stall, one toilet, one sink, and one floor drain. The septic system was constructed in 1985 and most likely used until Building 3C-36 was abandoned in 1992.

Sources of Potential Contamination - According to three interviewees, the septic system for Building 3C-36 received only sewage from one rest room within the building (Marshall, 2002; Boyd, 2002; and Dalson, 2002a).

Previous Investigation Results - A radiological survey was conducted at various exterior points within the leachfield. Based on this survey and historical documentation, there is little likelihood of any radiological concerns at this site. (Adams, 2001)

Contaminants of Potential Concern - No critical COPCs were identified for this CAS. The following noncritical COPCs identified for this CAS are based on interviews, common NTS concerns, and process knowledge:

- VOCs, SVOCs, petroleum hydrocarbons, and RCRA metals are representative of general characteristics of sewage (Boyd, 2002; Dalson, 2002a; Marshall, 2002; and People for Puget Sound, 2001).

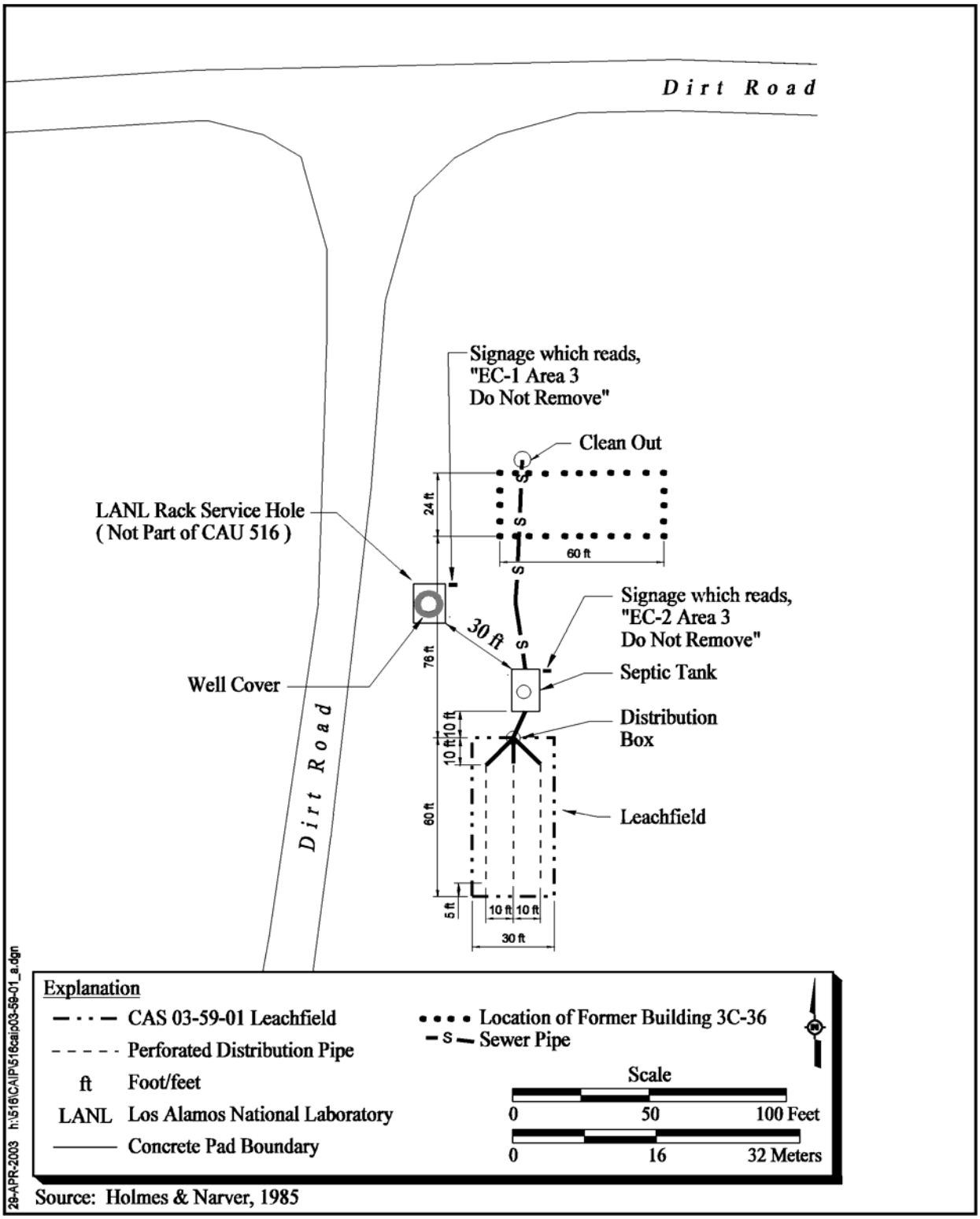


Figure A.1-2
CAS 03-59-01, Building 3C-36 Septic System

- Beryllium and PCBs are common concerns at the NTS and have not been ruled out at this CAS based upon process knowledge.

A.1.1.2 CAS 03-59-02, Building 3C-45 Septic System

Physical Setting and Operational History - This CAS is located north of Road 3-01 and west of Angle Road in Area 3 and consists of a septic tank, leachfield, distribution box, and associated piping that serviced Building 3C-45 (see Figure A.1-3). Also included in the CAS is a dry well used for the disposal of photoprocessing chemicals. Engineering drawings indicate that the 1,200-gal septic tank is constructed of precast concrete and located northeast of Building 3C-45 at a depth of approximately 2 ft bgs. The leachfield is approximately 77 ft northeast of the Building 3C-45 and has dimensions of about 98 by 59 ft (IT, 2001). The dry well is located about 8 ft northeast of the leachfield, is 4 ft in diameter, has a total depth of approximately 12 ft bgs (Holmes & Narver, 1978), and a volume estimated at 151 ft^3 (IT, 2001). Building 3C-45 was in operation from 1974 until 1990 or 1991, had one rest room, and was used for electrical component fabrication, storage, and as a support facility for the neighboring Diode Facility. One interviewee reported the storage of nuclear racks within Building 3C-45 (Dalson, 2002b). Another interviewee commented on the fabrication, use, and storage of electrical components within Building 3C-45 (Marshall, 2002).

In addition to the aforementioned CAS components, a borehole located approximately 10 ft west of Building 3C-45 will also be investigated. Historical documentation refers to this borehole as a dry well belonging to LANL. The borehole was drilled on August 24, 1976, to a total depth of 44 ft bgs. The borehole has no casing and has a 72-in. diameter to 15.5 ft bgs and a 48-in. diameter to 44 ft bgs (DOE/NV, 1990). An engineering drawing shows a 2-in. acid-resistant polypropylene sewer pipe near the base of the borehole and the borehole backfilled to grade (Holmes & Narver, 1985). The purpose of the borehole is unknown.

Sources of Potential Contamination - The septic system was designed to receive domestic sewage from Building 3C-45. One interviewee stated that nuclear racks associated with electronic diagnostic activities were stored in Building 3C-45 (Dalson, 2000b). Photoprocessing took place in the mobile photoprocessing trailers and the waste chemicals from this process were reportedly disposed of in the dry well.

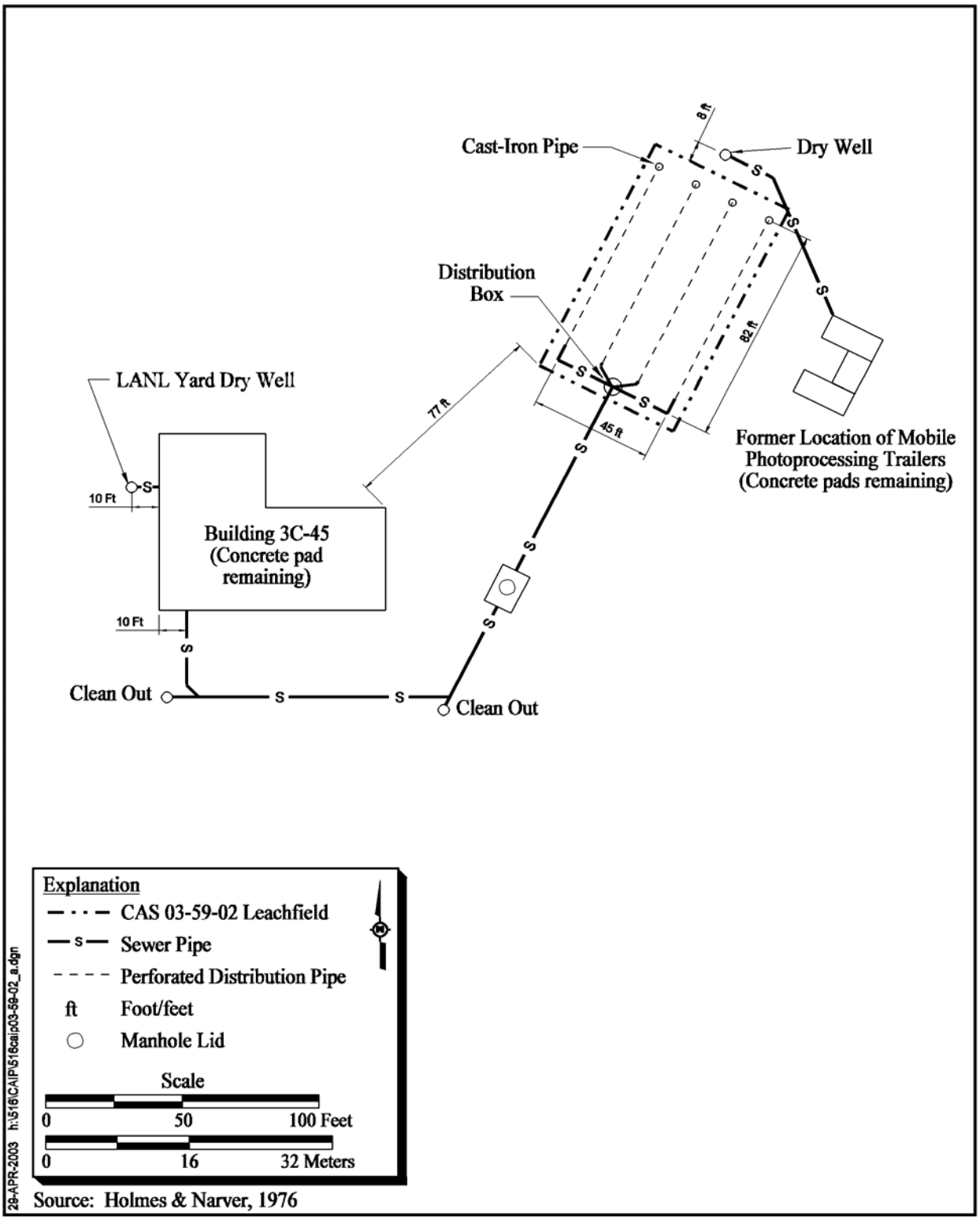


Figure A.1-3
CAS 03-59-02, Building 3C-45 Septic System

Previous Investigation Results - Although documentation was found with a characterization plan for the Building 3C-45 septic tank (REECo, 1995), it is unknown as to whether or not this was done. A radiological survey (IT, 2002) conducted at various points of the leachfield showed radiological readings did not exceed the background readings of the general area (Adams, 2001).

Contaminants of Potential Concern - The following critical COPCs identified for this CAS are based on an interview, product documentation, and process knowledge:

- Silver is released from the film during photograph developing (Phellan, 2002; and Sunspot Productions, 2002).
- Hydroquinone is in the developing agent used in photoprocessing (Kodak, 1998a; and Sunspot Productions, 2002).
- Aluminum is a component of a rapid fixer used in photoprocessing (Kodak, 1998b).

The noncritical COPCs identified below are based on interviews, common NTS concerns, and process knowledge:

- VOCs, SVOCs, petroleum hydrocarbons, and RCRA metals are representative of general characteristics of sewage (People for Puget Sound, 2001).
- Beryllium and PCBs are common concerns at the NTS and have not been ruled out based upon process knowledge.
- Cs-137, Sr-90, and Pu-238, -239/240 based on nuclear racks used for nuclear tests diagnostics stored in Building 3C-45 (Dalson, 2002b). There is insufficient information as to what capacity the nuclear racks were used; therefore, these radioisotopes will be analyzed to verify their absence.

A.1.1.3 CAS 06-51-01, Sump and Piping; and CAS 06-51-03, Clean Out Box and Piping

Physical Setting and Operational History - The CAS 06-51-01 is located in the Well 3 Yard in Area 6 and consists of a 4-in. vitreous clay pipe which trends north from Building 660 approximately 300 ft into a sump (see Figure A.1-4). Four floor drains and two sink drains within Building 660 connect into this pipe. The sump is approximately 25 by 30 ft and is located north of Building 660. An UST and associated piping located north of Building 660 is assigned to CAS 06-02-04 in

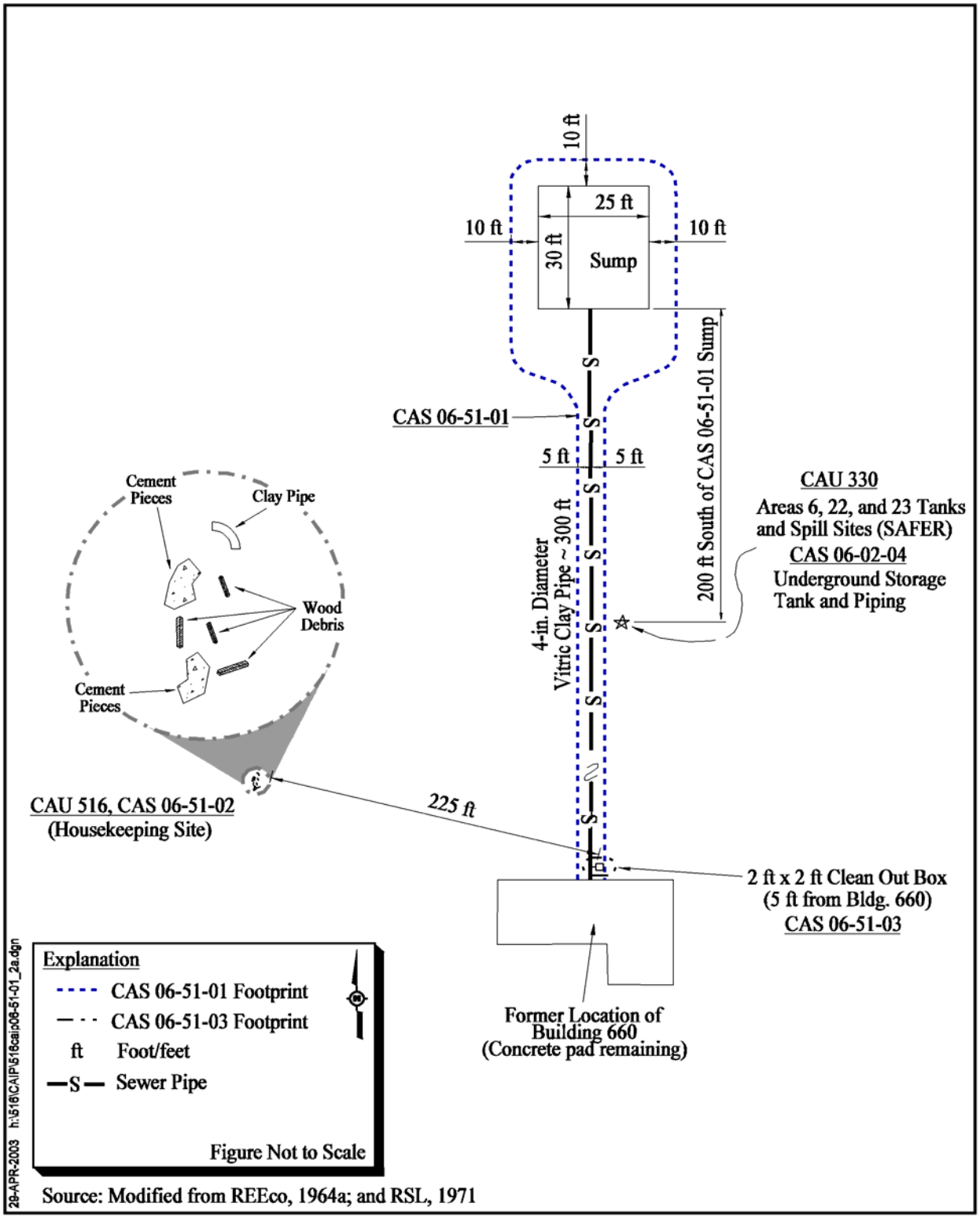


Figure A.1-4
CAS 06-51-01, Sump and Piping; CAS 06-51-02, Clay Pipe and Debris; and CAS 06-51-03, Clean Out Box and Piping

CAU 330 and is not associated with CAU 516. One interviewee recalled the UST resembling a settling tank rather than a septic tank constructed out of concrete and clay piping (Laub, 2001).

The associated clean out box and piping resides within CAS 06-51-03 (see Figure A.1-4). This CAS consists of a clean out box made of wood and concrete that measures 2 x 2 x 3 ft with a 6-in. cast-iron pipe with an end cap projecting into it from the west. The cast-iron pipe is believed to serve as an access pipe to the main 4-in. vitric clay pipe that extends north from Building 660 into the CAS 06-51-01 sump.

Building 660 was constructed in 1964 and was used until 1972 as a feed barn, dairy barn, slaughterhouse, and for the preparation of animal tissues for radiological monitoring and animal studies. After that the building was used to store tools, parts, and special pipe fittings until 1989. The building was reported to have also been used as a calibration laboratory (Madsen, 2001). In 1993, the sinks inside Building 660 were designated for hand washing only (Azhikakath, 1994).

Sources of Potential Contamination - According to historical documentation, Building 660 was discharging wastewater directly into the sump (REECo, 1994). An interviewee reported being told that radioactive animal feed was buried north of Building 660 and that all waste was discharged to the sump (Madsen, 2001). No evidence of buried material has been found. A document requesting closure of the CAU 330 UST stated that the use of Building WY-42 (also known as Building 660) was a cow barn, where cows were fed plutonium and americium contaminated hay and then slaughtered for study (Madsen, 2001; Sygitowicz, 1995). Drain lines connecting to the UST could not be verified. The document also indicates that wastewater generated within this building was directed through one sink and drain; however, the types of solvents or cleaners that might have been introduced into the sink and drain was undetermined (Sygitowicz, 1995). The engineering drawing RE-788 (REECo, 1964b) shows four floor drains and two sink drains in Building 660. The UST is not shown on any engineering drawings identified during this investigation. An engineering drawing shows transformers in the vicinity of Building 660 (REECo,1964a); although no report of PCB contamination or leaks were found during the preliminary assessment. During a 1994 investigation of Building 660, a Stop Work Order was issued for an unpermitted wastewater discharge as a result of wastewater discharging into a sump/leach pit rather than the UST for which it was intended. Water

service was terminated and the sinks and drains were sealed inside and outside the building (REECo,1994).

Previous Investigation Results - No previous investigation results are identified for these CASs, but analytical results exist for a liquid sample collected in 1994 from the nearby UST in CAU 330 and submitted for analysis. The CAU 330 UST is located within 10 ft of CASs 05-51-01 and 05-51-02 and is designated 06-02-04. The sample collected in 1994 was analyzed for the following analytical parameters: VOCs, SVOCs, TCLP metals, TPH (gasoline/diesel/oil-ranges), pH, Clor-d-tect 4000, gamma spectrometry, isotopic Pu, and tritium. The analytical results reported the detection of chlorine, barium, caustics, corrosives, acids (Cowley, 1994); Pu-238, Pu-239, and tritium at concentrations below PALs (Latham, 1995). The pH of the sample was 7.94 (Cowley, 1994). Further investigation of the CAU 330 UST conducted in December 2002 verified that the drain lines connected to the UST are not connected to either CAS 06-51-01 or CAS 06-51-03 (Urbon, 2003). Additional liquid and sludge samples were collected from the UST in March 2003 and analyzed for TCLP VOCs, TCLP SVOCs, TCLP RCRA metals, TPH, PCBs, tritium, and alpha, beta and gamma-emitting radionuclides. Total petroleum hydrocarbons were detected at 191 mg/kg (Urbon, 2003).

Contaminants of Potential Concern - The following critical COPCs identified for this CAS are based on process knowledge and previous analytical results:

- Pu-238 and -239/240 (Latham, 1995) were detected below the MDLs in the UST liquid sample collected from CAU 330, CAS 06-04-02, and were used in the animal feed used in animal investigation studies (Madsen, 2001; Sygitowiciz, 1995)
- Am-241, and Pu-238 and -239/240 from animal feed used in animal investigation studies (Madsen, 2001; Sygitowicz, 1995)
- Cs-137 and Sr-90 based on historical documentation regarding the Animal Investigation Program (EPA, 1984). Analyses will be performed to verify their absence.

The noncritical COPCs identified below are based on process knowledge, common NTS concerns, and historical documentation:

- VOCs, SVOCs, petroleum hydrocarbons, and RCRA metals are representative of general characteristics of sewage (People for Puget Sound, 2001).
- Beryllium and PCBs are common concerns at the NTS and have not been ruled out based upon process knowledge.

A.1.1.4 CAS 22-19-04, Vehicle Decontamination Area

Physical Setting and Operational History - This CAS, 06-51-03, is a former vehicle decontamination area located approximately 800 ft southwest of the Weather Station in Area 22 (see Figure A.1-5). The vehicle decontamination site consists of a decontamination pad, a drainage trench, and a sump. The decontamination pad is rectangular, measures 32-ft long and 15-ft wide, and is topped with gravel ranging from approximately 5 to 10 in. in diameter. The drainage trench measures 30-ft long, 3-ft wide, and 2-ft deep and runs between the decontamination pad and sump. The sump consists of a depression in the soil measuring 11-ft long, 9-ft wide, and 4-ft deep.

Review of Defense Nuclear Agency historical documents report that a series of atmospheric tests named Buster-Jangle were conducted in the 1950s. Camp Desert Rock was activated in 1951 for the Buster-Jangle tests. Operations at Camp Desert Rock took place from 1951 until 1964. Military personnel at Camp Desert Rock were trained in personnel and equipment monitoring, in decontamination procedures, and established and operated a decontamination station near the exercise location. Immediately after the test was conducted, the decontamination personnel monitored all participants who had exceeded the prescribed distance from ground zero. If gamma intensities exceeded 0.02 Roentgen per hour (R/h), the personnel and vehicles were directed to a nearby decontamination facility. Vehicles were decontaminated with detergent and water. Vehicles or equipment requiring further decontamination were often decontaminated at the Area 22 vehicle decontamination pad. (DNA, 1982)

Sources of Potential Contamination - Radioactive fallout from atmospheric detonations contaminated personnel and vehicles with alpha-, beta-, and gamma-emitting radionuclides. Long-lived radionuclides possibly remaining at this CAS are Cs-137, Sr-90, Pu-238, Pu-239/240,

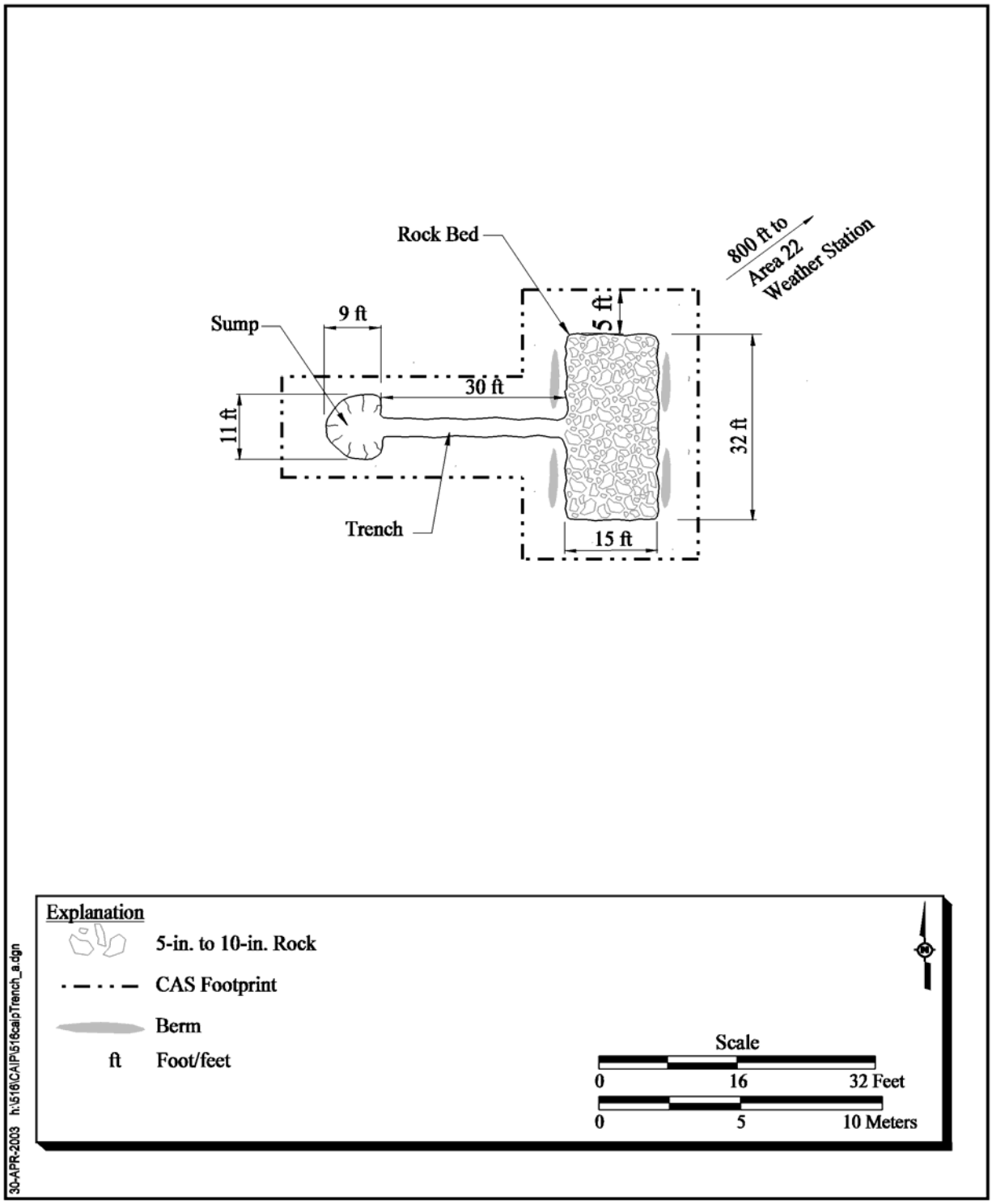


Figure A.1-5
CAS 22-19-04, Vehicle Decontamination Area

U-234, U-235, and U-238. Vehicles were subsequently decontaminated using high-pressure water and detergents, releasing rinsate potentially contaminated with VOCs, SVOCs, RCRA metals, and petroleum hydrocarbons, along with radionuclides, into the washdown pad, trench, and sump, which may have resulted in the transport of the contaminants below surface.

Previous Investigation Results - An EM-31-DL terrain conductivity survey was completed in 2001 over a 60- by 100-ft rectangular area. The survey confirmed that no metallic debris was buried within the surveyed area (SAIC, 2001).

Radiological surveys were conducted in 1998 (IT, 1998) and 2002 (IT, 2002). All radiological survey readings were below or within background levels.

Gamma spectroscopy was conducted on a soil sample taken underneath the vehicle washdown pad in 2001. Cesium-137 was noted at 0.5 pCi/g and is within the environmental fallout range for atmospheric tests. It is unknown if Cs-137 was introduced into the soil from runoff during decontamination activities or from nuclear fallout activity. All other radionuclides detected are naturally occurring potassium-40, as well as U and thorium decay chains. (Emer, 2001)

Contaminants of Potential Concern - No critical COPCs were identified for this CAS. The following noncritical COPCs identified for this CAS are based on process knowledge and historical documentation:

- VOCs and SVOCs used for the decontamination process
- RCRA metals and TPH from the decontamination of equipment and vehicles fueled by and maintained with petroleum hydrocarbon products
- Cs-137, Sr-90, Pu-238, -239/240; and U-234, -235, -238 from atmospheric testing fallout or from the decontamination of vehicles and equipment
- Because beryllium and PCBs are common concerns at the NTS, they have not been ruled out based upon process knowledge

A.1.2 Seven-Step DQO Process

This following section presents the seven-step DQO process for an investigation as applied to CAU 516.

A.1.2.1 Step 1 - State the Problem

This step identifies the DQO planning team members, describes the problem that has initiated the CAU 516 investigation, and develops CSMs.

A.1.2.2 Planning Team Members

The DQO planning team consists of representatives from NDEP, NNSA/NSO, Shaw Environmental, Inc. (Shaw), and Bechtel Nevada (BN). The primary decision makers include NDEP and NNSA/NSO representatives. Table A.1-2 lists representatives from each organization in attendance for the January 9, 2003, DQO meeting.

A.1.2.3 Describe the Problem

Corrective Action Unit 516 is being investigated because effluent contaminated with hazardous and/or radioactive constituents may have been discharged into the septic systems and/or discharge points at CASs 03-59-01, 03-59-02, 06-51-01, and 06-51-03, potentially contaminating the native soil underlying the leachfields. In addition, contaminated effluent may have escaped into the surrounding soil as a result of failures in the septic system design (e.g., uncapped terminating pipes) and/or in the structural integrity (e.g., breaches) in one or more components of the septic system (e.g., septic tank, distribution box, piping).

Wastewater contaminated with hazardous and/or radioactive constituents produced from decontamination activities at CAS 22-19-04 was released to the underlying and surrounding native soil as it washed onto an unlined gravel pad constructed to direct the wastewater to a sump via a gravel-lined trench.

As a result of the above activities, hazardous and/or radioactive constituents may be present at these CASs at concentrations that could potentially pose a threat to human health and/or the environment.

Table A.1-2
DQO Meeting Participants

Participant	Affiliation	Function
Stacey Alderson	Shaw	Radiation Physics Lead
Kevin Cabble	NNSA/NSO	Environmental Restoration Division Task Manager
Jack Ellis	Shaw	Health and Safety Manager
Grant Evenson	SAIC	Industrial Sites Field Coordinator
Joe Hutchinson	SAIC	Radiological Data Validator
Syl Hersh	Shaw	Quality Processes Technical Staff
Robert Irwin	GRAM	Industrial Sites Technical Staff
Bridget Iverson	GeoTrans	Preliminary Assessments Liaison
Brad Jackson	BN	BN Task Manager
Linda Linden	SAIC	Industrial Sites CAU Lead
Joe Peters	SAIC	Chemical Data Validator
George Petersen	SAIC	Industrial Sites Technical Staff
Bill Nicosia	Shaw	Radiation Physics Technical Staff
Barbara Quinn	SAIC	Environmental Compliance and Waste Management Lead
James Traynor	BN	BN Task Manager
Al Wickline	SAIC	Industrial Sites Technical Staff
Jeanne Wightman	Shaw	Quality Processes Representative
Dustin Wilson	SAIC	Industrial Sites Task Manager
Ted Zaferatos	NDEP	Oversight/Representative

BN - Bechtel Nevada
NDEP - Nevada Division of Environmental Protection
NNSA/NSO - U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office
SAIC - Science Applications International Corporation
Shaw - Shaw Environmental, Inc.

A.1.2.4 Develop Conceptual Site Models

Five CSMs have been developed for CAU 516 using assumptions formulated from the physical setting, historical background, and potential contaminant sources and release information. The applicability of the CSMs to each CAS is summarized in Table A.1-3 and discussed in the following subsections. The CSMs are termed:

- Septic System
- Leachfield
- Clean Out Box
- Dry Well
- Sump

Conceptual site models describe the most probable scenarios for current conditions at specific sites and define the assumptions that are the basis for identifying appropriate sampling strategy and data collection methods. They set the stage for assessing how contaminants could reach receptors both in the present and future by addressing contaminant nature and location, transport mechanisms, and pathways, potential receptors, and potential exposures to those receptors. Accurate CSMs are important as they serve as the basis for all subsequent inputs and decisions throughout the DQO process.

Table A.1-3
Conceptual Site Models and Applicable CASs

Conceptual Site Models	03-59-01	03-59-02	06-51-01	06-51-03	22-19-04
Septic System	Septic Tank, Distribution Box, and Piping	Septic Tank, Distribution Box, and Piping	Sump Piping	Clean Out Box Piping	----
Leachfield	Leachfield	Leachfield	----	----	----
Clean Out Box	----	----	----	Clean Out Box	
Dry Well	----	Photographic Dry Well, LANL Yard Dry Well	----	----	----
Sump	----	----	Sump	----	Decontamination Pad, Drainage Trench, and Sump

---- Does not apply

An important element of a CSM is the expected fate and transport of contaminants, which infer how contaminants move through site media and where they can be expected in the environment. The expected fate and transport is based on distinguishing physical characteristics of the contaminants and media. Contaminant characteristics include solubility, density, and particle size. Media characteristics include permeability, saturation, sorting, chemical composition, and adsorption coefficients. In general, contaminants with low solubility and high density can be expected to be found relatively close to release points. Contaminants with high solubility and low density can be expected to be found further from release points or in areas where settling may occur.

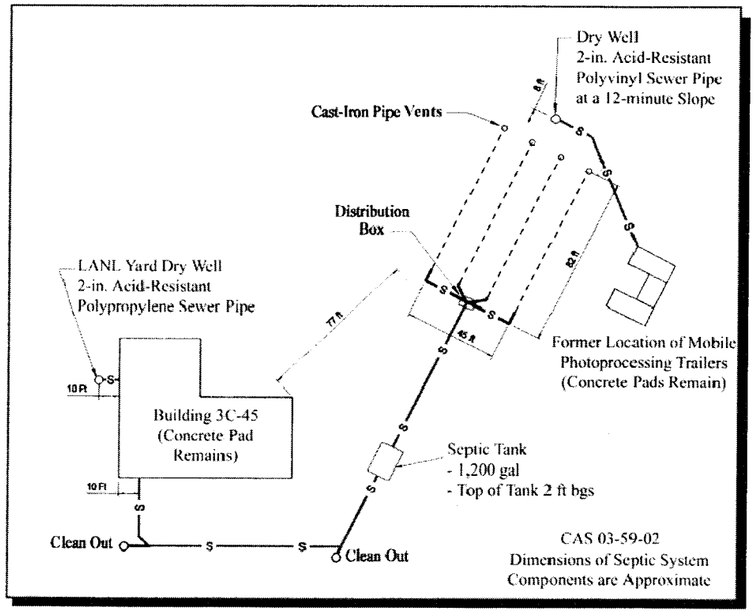
Contaminants migrating to regional aquifers are not considered a likely scenario at CAU 516 based on the average depth to groundwater, the low annual average precipitation rates, the high potential for evapotranspiration, and the low mobility of expected COPCs (e.g., SVOCs, PCBs, petroleum hydrocarbons, and RCRA metals).

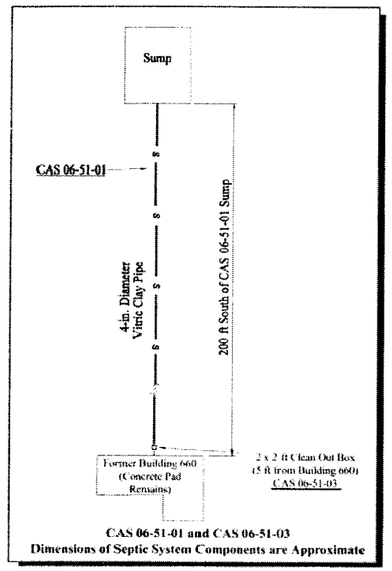
The five conceptual site models developed for CAU 516 and the CASs to which they are applicable are summarized in Table A.1-3 and discussed in the following subsections.

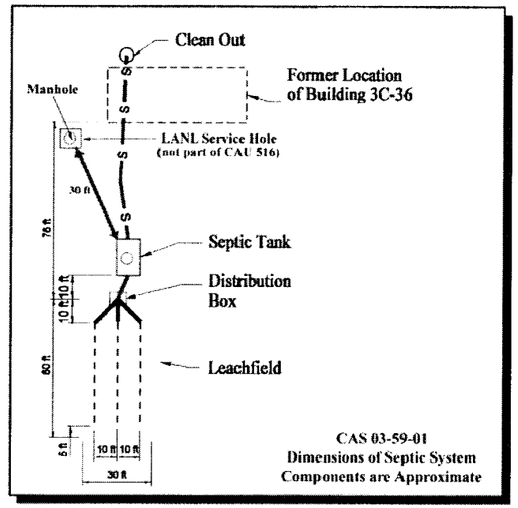
A.1.2.4.1 Septic System Conceptual Site Model

The Septic System CSM applies to the septic tanks, distribution boxes, and associated piping in CASs 03-59-01 and 03-59-02; the discharge pipe leading to the sump in CAS 06-51-01; and the tie-in to the CAS 06-51-03 clean out box. Upon release from the source, the effluent traveled through discharge lines and was routed into the various septic system components. Figure A.1-6 shows a generalized representation of the Septic System CSM. The following discussion of the CSM parameters provides additional details to supplement this model.

Exposure Scenario - The land-use designation for CASs 03-59-01 and 03-59-02 is within the Nuclear and High Explosives Test Zone for additional underground nuclear weapons tests and outdoor high explosive tests. The land-use designation for CASs 06-51-01 and 06-51-03 is within the Nuclear Test Zone reserved for dynamic experiments, hydrodynamic tests, and underground nuclear weapons and weapons effects tests (DOE/NV, 1998). Based on these land-use designations, the potential for exposure to contaminants is limited to construction and industrial workers who may be







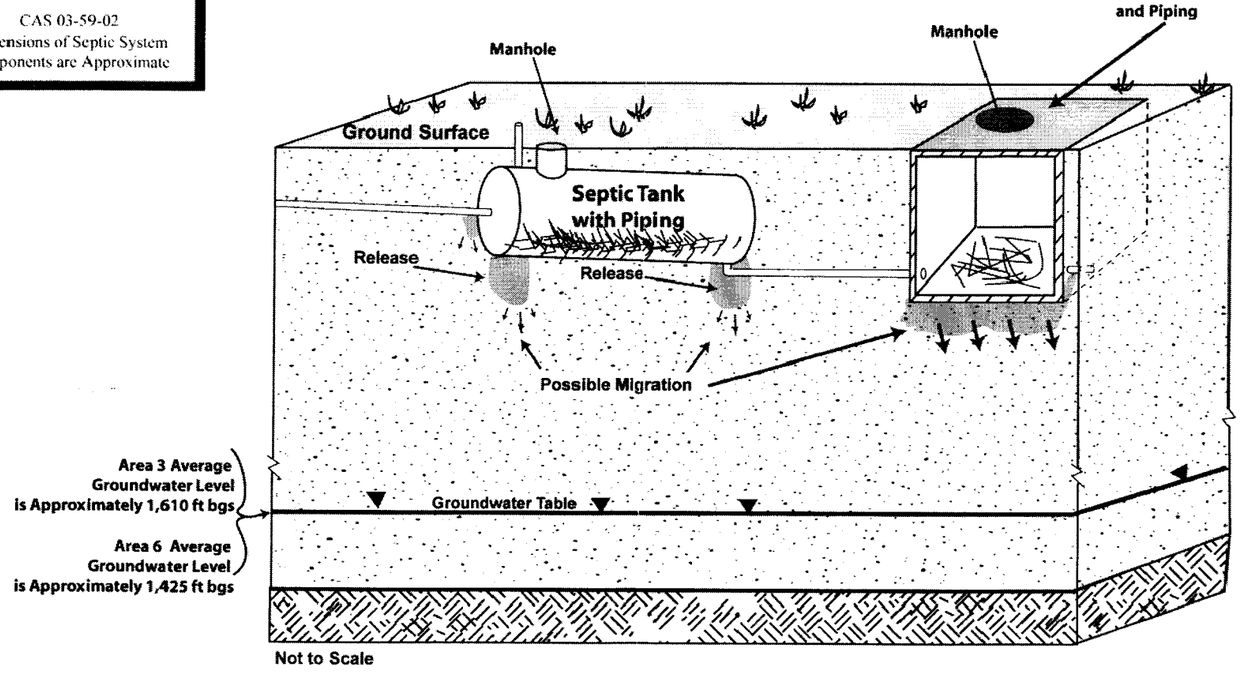


Figure A.1-6
Septic System Conceptual Site Model
Applicable to CAS 03-59-01, CAS 03-59-02, CAS 06-51-01, and CAS 06-51-03

exposed to COPCs through inadvertent oral ingestion, inhalation, or dermal contact (absorption) of soils and/or debris due to disturbance of these sites.

Affected Media - The affected media are subsurface soils beneath the base of the septic tank, distribution box, and associated piping.

Location of Contamination/Release Points - Beneath the outlet and inlet pipe ends and the base of the septic tanks, beneath the outlet end pipe and the base of the distribution boxes, and beneath any breaches in the associated piping. Migration of contamination would be expected to be primarily downward with horizontal migration to a lesser extent.

CAS 03-59-01 - Release from Building 3C-36 was through one drain leading to a distribution box and exiting into the leachfield.

CAS 03-59-02 - Release from Building 3C-45 was through a discharge pipe exiting the south side of the building. Another release from Building 3C-45 was through a discharge pipe exiting to the west side and leading to a dry well. Also, a release from the mobile photoprocessing trailers to a separate dry well located north of the leachfield.

CAS 06-51-01 - Release from Building 660 was through a 4-in. vitric clay pipe running north and exiting into the sump.

CAS 06-51-03 - Release into the clean out box was through a 6-in. diameter cast-iron pipe entering from the west side of the clean out box. The pipe served as an access point to the discharge pipe that serviced Building 660 and exited into the sump in CAS 06-51-01.

Transport Mechanisms - Injection of effluent and the infiltration and percolation of precipitation through soil serve as driving forces for downward migration.

Preferential Pathways - Preferential pathways for contaminant migration are not expected for this CSM.

Lateral and Vertical Extent of Contamination - The degree of contaminant migration, if any, at these sites is unknown, but it is assumed to be minimal based on the ambient and environmental

conditions at the NTS such as low precipitation (i.e., 3 to 10 in.), high evapotranspiration (USGS, 1975), and the mobility of COPCs. Any contamination at these sites is expected to be contiguous with the source and decrease with distance and depth from the site. It is not believed that groundwater has been, or would be, impacted because of the significant depths of groundwater levels and local environmental conditions. The average groundwater level in Area 3 is reported at 1,610 ft bgs (Wuellner, 1994), and 1,425 ft in Area 6 (DRI, 1993).

A.1.2.5 Leachfield Conceptual Site Model

The Leachfield CSM applies to CASs 03-59-01 and 03-59-02. Effluent was dispersed throughout the leachfield by way of perforated distribution pipes. Figure A.1-7 shows a generalized representation of the Leachfield CSM. The following discussion of the CSM parameters provides additional details to supplement this model.

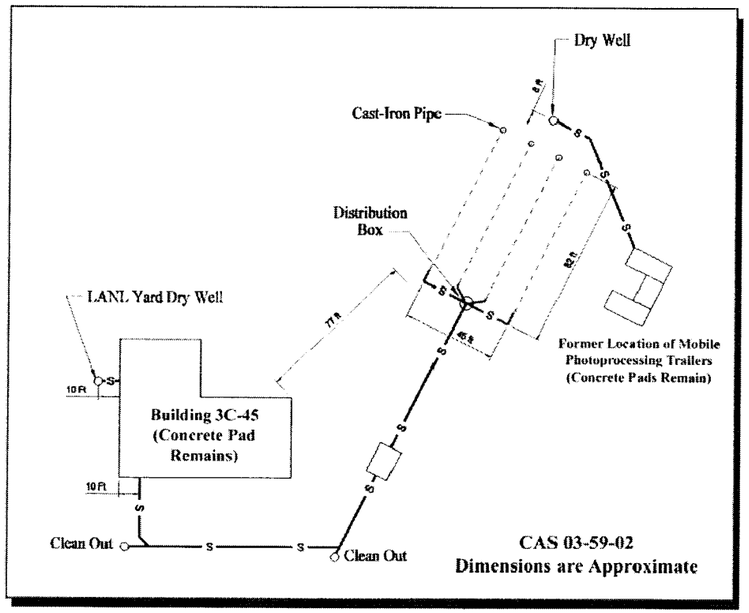
Exposure Scenario - The land-use designation for CASs 03-59-01 and 03-59-02 is within the Nuclear and High Explosives Test Zone for additional underground nuclear weapons tests and outdoor high explosive tests (DOE/NV, 1998). Based on this land-use designation, the potential for exposure to contaminants is limited to construction and industrial workers who may be exposed to COPCs through inadvertent oral ingestion, inhalation, or dermal contact (absorption) of soils and/or debris due to disturbance of these materials.

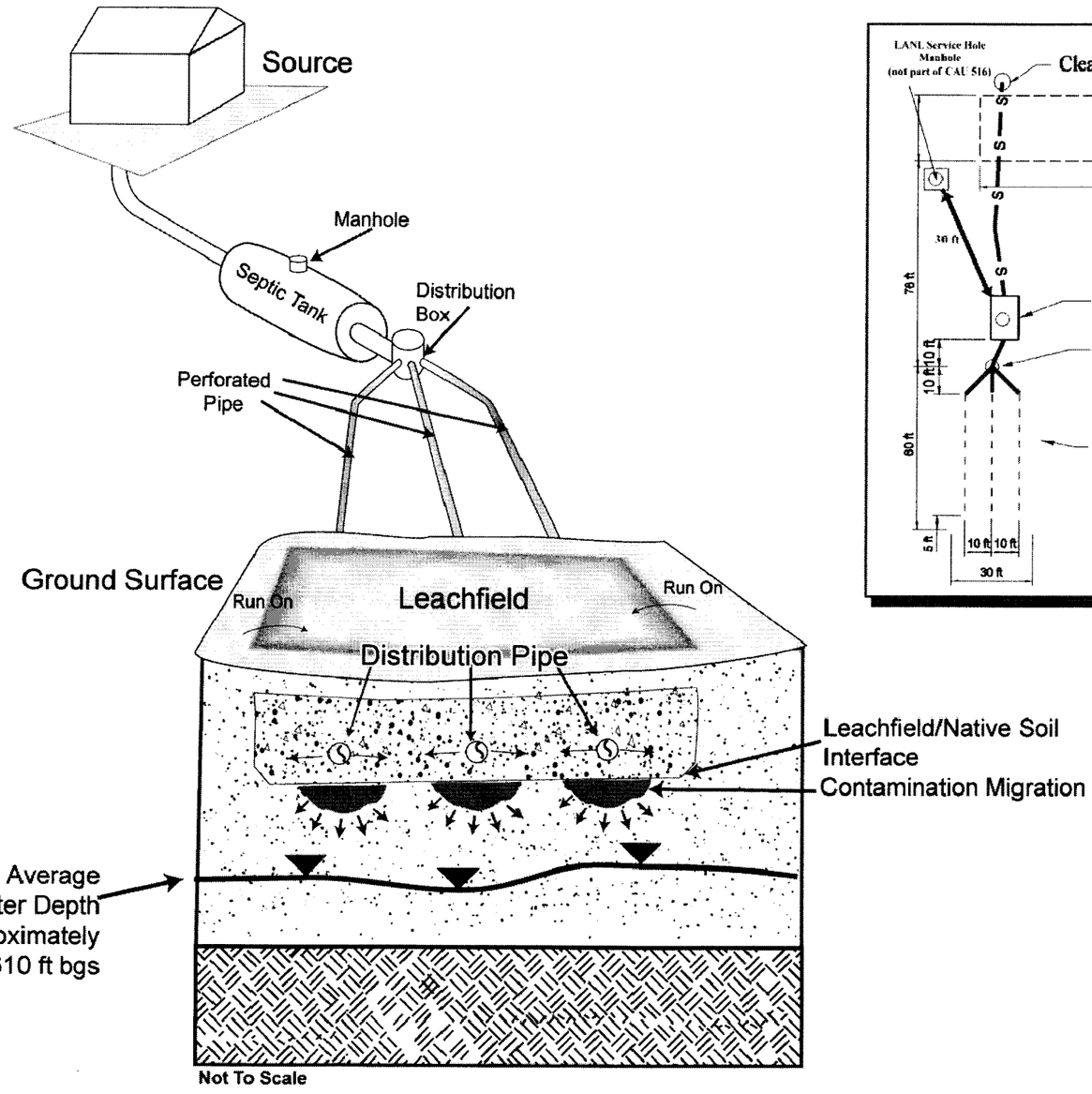
Affected Media - The affected medium is soil beneath the leachrock/native soil interface.

Location of Contamination/Release Points - The leachfields have multiple distribution lines. If present, soluble contaminants are expected in distal areas of the leachfield; insoluble and large-particle contaminants are expected in the proximal ends.

Transport Mechanisms - Injection of effluent and infiltration and percolation of precipitation through soil serve as driving forces for downward migration.

Preferential Pathways - Preferential pathways for contaminant migration are not expected for this CSM.





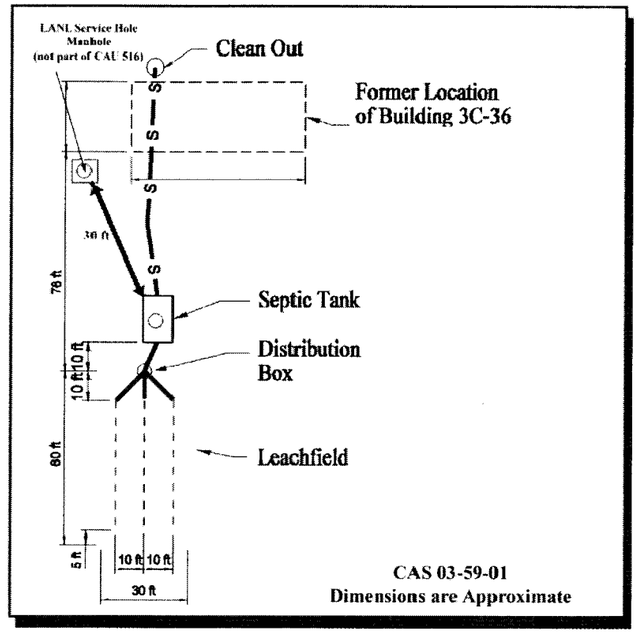


Figure A.1-7
Leachfield Conceptual Site Model
Applicable to CAS 03-59-01 and CAS 03-59-02

Lateral and Vertical Extent of Contamination - The degree of contaminant migration, if any, at these sites is unknown, but it is assumed to be minimal based on the ambient and environmental conditions at the NTS such as low precipitation (i.e., 3 to 10 in.), high evapotranspiration (USGS, 1975), and the mobility of COPCs. Any contamination at these sites is expected to be contiguous with the source and decrease with distance and depth from the site.

It is not believed that groundwater has been, or would be, impacted because of the significant depths of groundwater levels and local environmental conditions. The average groundwater level in Area 3 is reported at 1,610 ft bgs (Wuellner, 1994).

A.1.2.6 Clean Out Box Conceptual Site Model

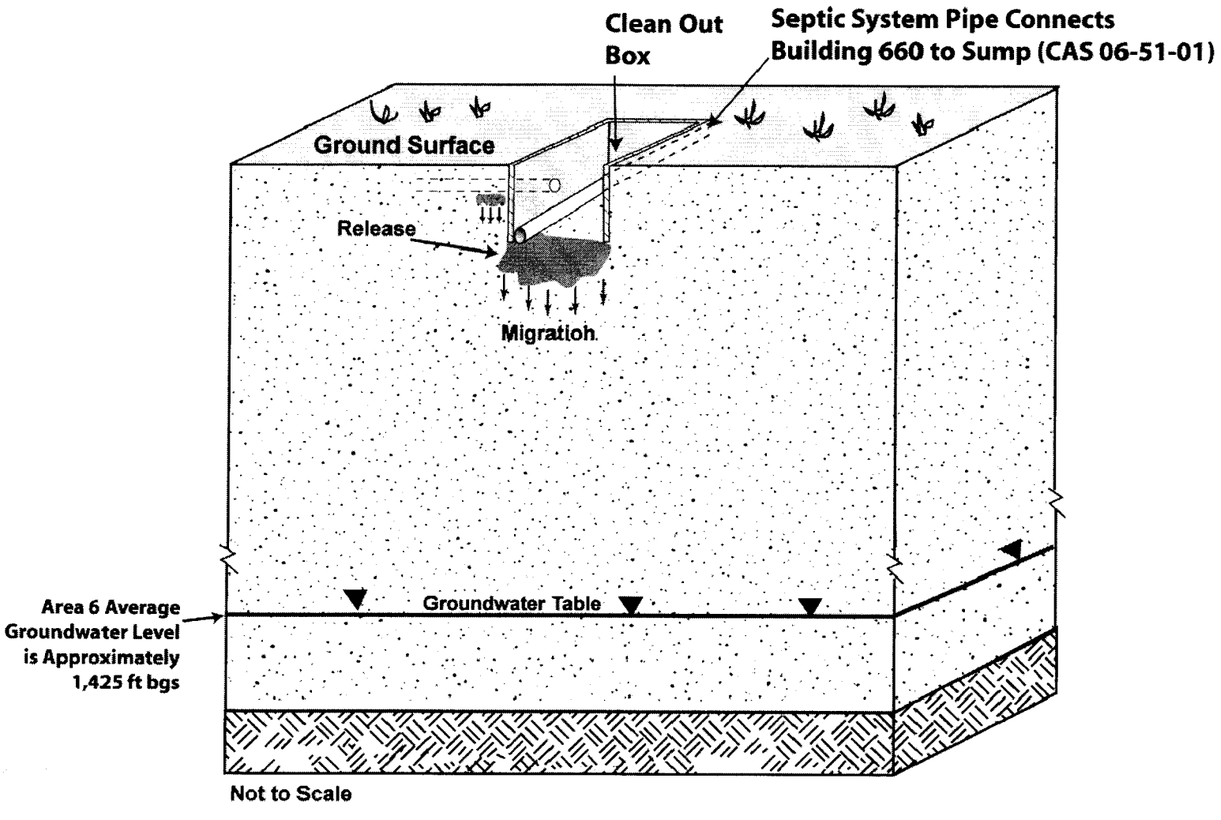
The Clean Out Box CSM applies to CAS 06-51-03. The clean out box provides a single-point access to the main discharge pipe connecting Building 660 to the sump. Figure A.1-8 shows a generalized representation of the Clean Out Box CSM. The following discussion of the CSM parameters provides additional details to supplement this model.

Exposure Scenario - Land-use designation for CAS 06-51-03 is within the Nuclear Test Zone reserved for dynamic experiments, hydrodynamic tests, and underground nuclear weapons and weapons effects tests (DOE/NV, 1998). Based on this land-use designation, the potential for exposure to contaminants is limited to construction and industrial workers who may be exposed to COPCs through inadvertent oral ingestion, inhalation, or dermal contact (absorption) of soils and/or debris due to disturbance of these materials.

Affected Media - The affected medium is subsurface soil beneath the base of the clean out box.

Location of Contamination/Release Points - Contaminants would be expected to be more concentrated beneath the clean out box as a result of one direct release point and subsequent percolation from gravity. Any contamination would be attributable to the release of contaminants through direct release from the outlet pipe into the clean out box.

Transport Mechanisms - Injection of effluent through direct release from the access pipe into the clean out box and the infiltration and percolation of precipitation through soil serve as driving forces for downward migration.



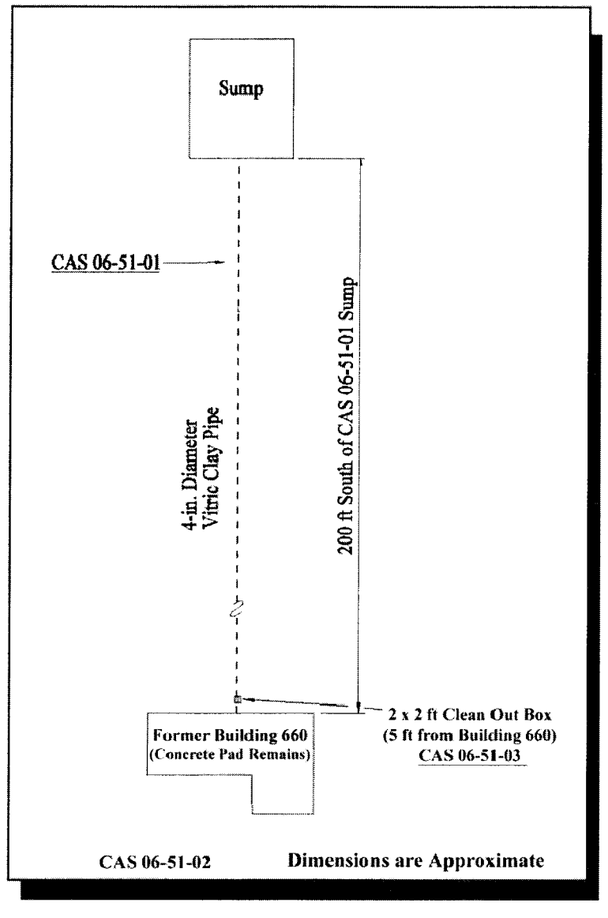


Figure A.1-8
Clean Out Box Conceptual Site Model
Applicable to CAS 06-51-03

Preferential Pathways - Preferential pathways for contaminant migration are not expected for this CSM.

Lateral and Vertical Extent of Contamination - The degree of contaminant migration, if any, at these sites is unknown, but it is assumed to be minimal based on the ambient and environmental conditions at the NTS such as low precipitation (i.e., 3 to 10 in.) and high evapotranspiration (USGS, 1975), and the mobility of COPCs. Any contamination at these sites is expected to be contiguous with the source and decrease with distance and depth from the site. It is not believed that groundwater has been or would be impacted because of the significant depths of groundwater levels and local environmental conditions. The average groundwater level in Area 6 is reported at 1,425 ft bgs (Wuellner, 1994).

A.1.2.7 Dry Well Conceptual Site Model

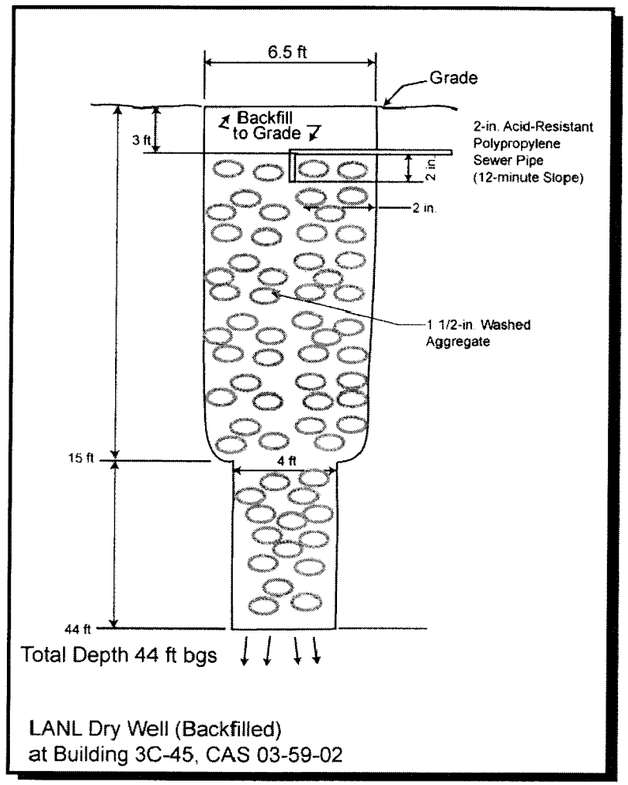
The Dry Well CSM applies to the dry wells at CAS 03-59-02. Effluent was released through a distribution pipe directly into the dry wells. Figure A.1-9 shows a generalized representation of the Dry Well CSM. The following discussion of the CSM parameters provide additional details to supplement this model.

Exposure Scenario - The CAS 03-59-02 land-use designation is within the Nuclear and High Explosives Test Zone for additional underground nuclear weapons tests and outdoor high explosive tests (DOE/NV, 1998). Based on this land-use designation, the potential for exposure to contaminants is limited to construction and industrial workers who may be exposed to COPCs through inadvertent oral ingestion, inhalation, or dermal contact (absorption) of soils and/or debris due to disturbance of these materials.

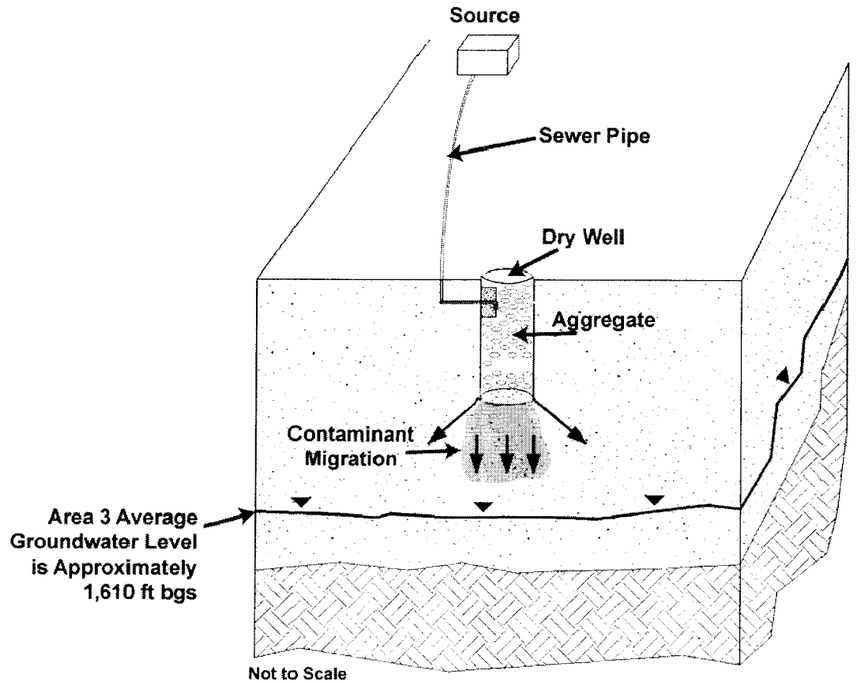
Affected Media - The affected medium is subsurface soil beneath the base of the dry wells.

Location of Contamination/Release Points - The dry wells are a single-point source release. Any contaminants at this CAS are expected to beneath the dry wells.

Transport Mechanisms - The injection of wastewater to the dry wells was the primary transport mechanism. Infiltration and percolation through soil is a secondary mechanism that moves contaminants deeper into the soil.



LANL Dry Well (Backfilled)
at Building 3C-45, CAS 03-59-02



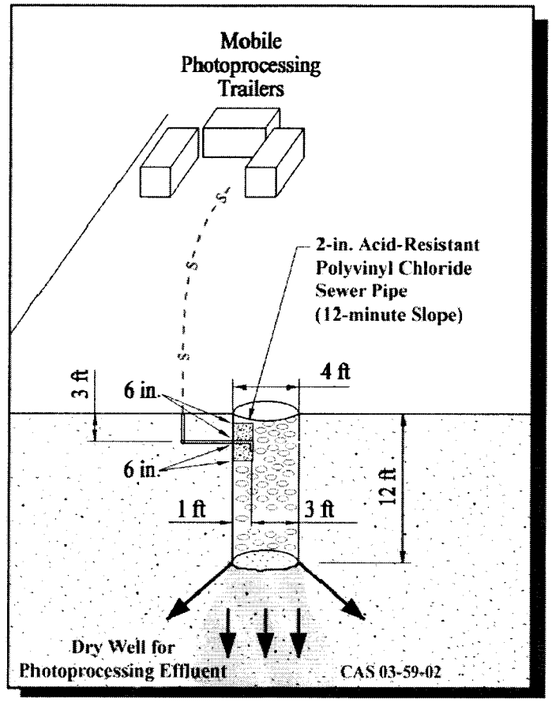


Figure A.1-9
Dry Well Conceptual Site Model
Applicable to CAS 03-59-01 and CAS 03-59-02

Preferential Pathways - Preferential pathways for contaminant migration are not expected for this CSM.

Lateral and Vertical Extent of Contamination - The degree of contaminant migration at the dry wells are unknown, but it is assumed to be minimal based on the ambient and environmental conditions at the NTS such as low precipitation (i.e., 3 to 10 in.), high evapotranspiration (USGS, 1975), and the mobility of COPCs. Any contamination in the dry wells is expected to be contiguous with the source and decrease with depth and lateral distance from a dry well.

The average groundwater level in Area 3 is 1,610 (Wuellner, 1994); therefore, it is not believed that the groundwater has been or would be impacted by any contamination in the dry wells.

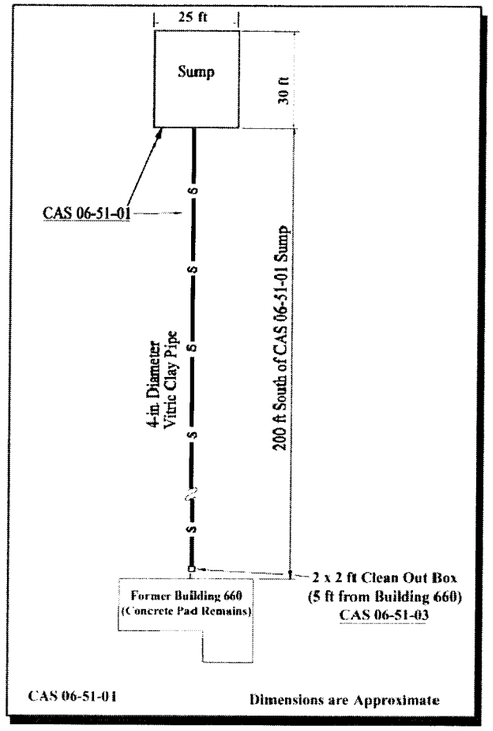
A.1.2.7.1 Sump Conceptual Site Model

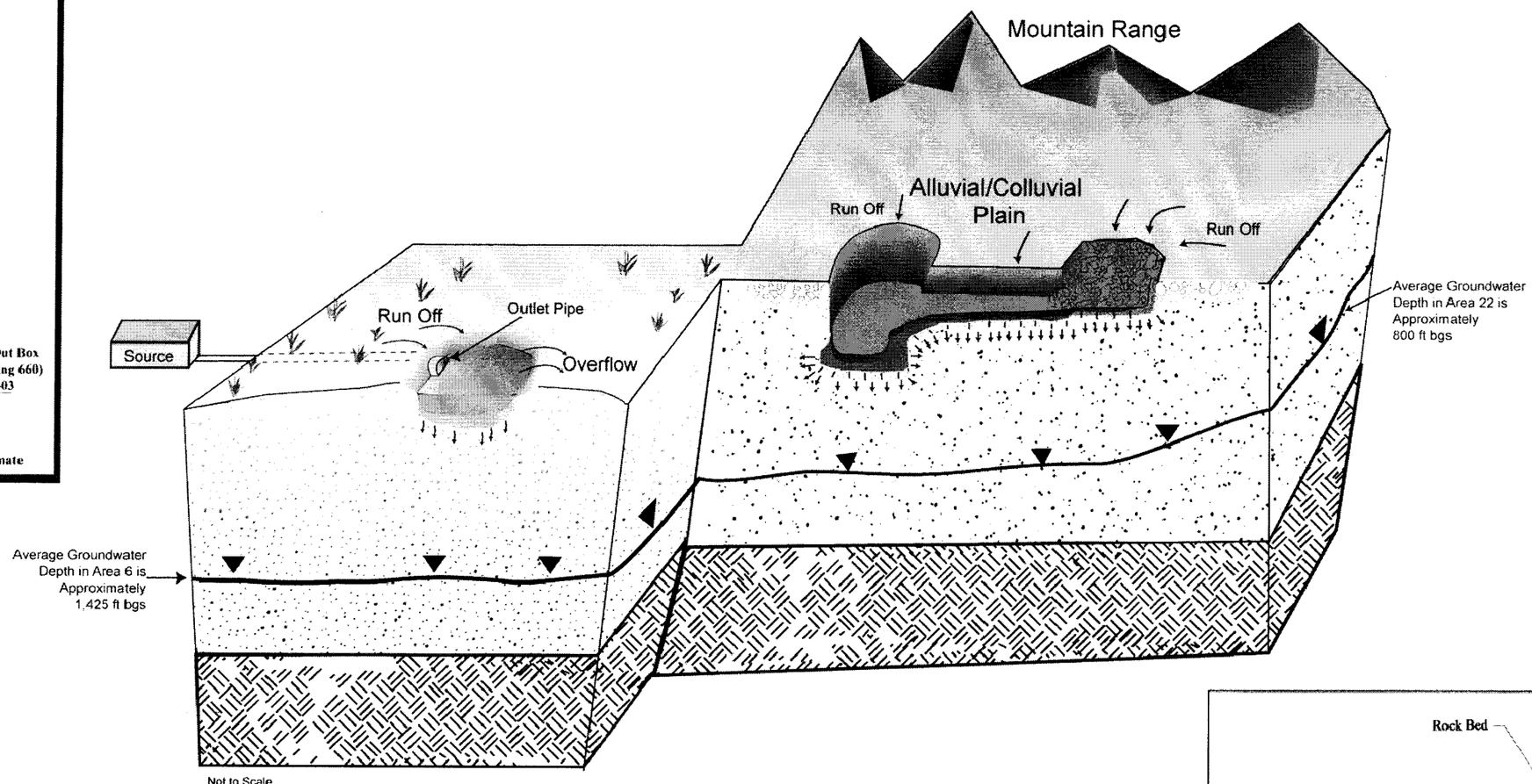
The Sump CSM applies to CASs 06-51-01 and 22-19-04. Figure A.1-10 shows a generalized representation of the Sump CSM. The following discussion of the CSM parameters provides additional details to supplement this model.

Exposure Scenario - The land-use designation for CAS 06-51-01 is within the Nuclear Test Zone reserved for dynamic experiments, hydrodynamic tests, and underground nuclear weapons and weapons effects tests. The land-use designation for CAS 22-19-04 is within the Solar Enterprise Zone (DOE/NV, 1998). This area is designated for the development of a solar power generation facility, and light industrial equipment and commercial manufacturing capability. Based on these land-use designations, the potential for exposure to contaminants are limited to construction and industrial workers in CAS 06-51-01, and to construction, industrial, and commercial workers in CAS 22-19-04 who may be exposed to COPCs through inadvertent oral ingestion, inhalation, or dermal contact (absorption) of soils and/or debris due to disturbance of these materials.

Affected Media - The affected media are soil beneath the sumps and possibly the surrounding surface soil. The sump in CAS 22-19-04 also includes the soil beneath the decontamination pad and trench.

Location of Contamination/Release Points - Contaminants, if present, would be concentrated at the sump material/native soil interface, within low points in the sump, and would be expected to be found at decreasing concentrations along the flow direction of the trench and surface discharge area.





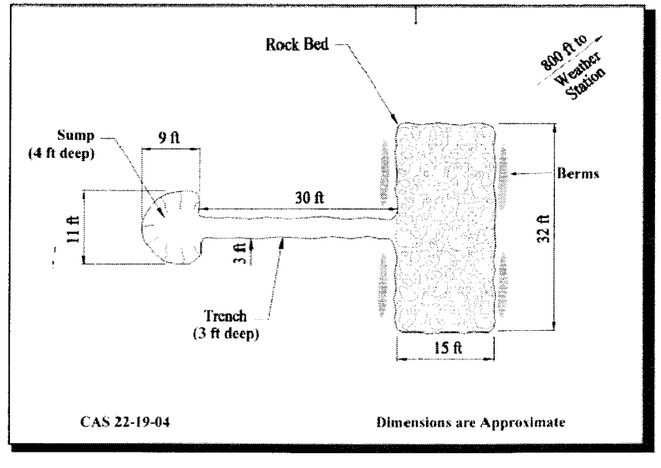


Figure A.1-10
Sump Conceptual Site Model
Applicable to CAS 06-51-01 and CAS 22-19-04

Surface runoff and erosion (e.g., flash flooding) would move contaminated soil laterally, with the concentration decreasing with distance.

Transport Mechanisms - The discharge of wastewater directly onto the surface of the decontamination area components (e.g., decontamination pad, trench, sump) at CAS 22-19-04 and directly into the sump at CAS 06-51-03, and the infiltration and percolating of precipitation into the soil are driving forces for downward migration; however, in the case of CAS 22-19-04, runoff from flash flooding also serves as a transport mechanism moving contamination to low-lying areas adjacent to the sump.

Preferential Pathways - The preferential pathway for contamination migration from the sump at CAS 22-19-04 would be erosion by surface water flow resulting from the perpendicular orientation of the sump on the alluvial/colluvial plain sloping to the south. No preferential pathways for contaminant migration at CAS 06-51-01 were identified.

Lateral and Vertical Extent of Contamination - The degree of contaminant migration at the sumps is unknown, but it is assumed to be minimal based on the ambient and environmental conditions at the NTS such as low precipitation (i.e., 3 to 10 in.), high evapotranspiration (USGS, 1975), and the mobility of COPCs. The average groundwater level in Area 22 is 787 ft (DRI, 1993); therefore, it is not believed that the groundwater has been or would be impacted by any contamination in the sumps.

A.1.3 Step 2 - Identify the Decision

This step develops a decision statement and defines alternative actions. The following subsections identify decisions and alternative actions appropriate for the investigation.

A.1.3.1 Develop a Decision Statement

Problem Statement, “There is an insufficient amount of information to characterize the nature and extent of contamination released to these sites to determine if there is a risk to human health and the environment.”

The Decision I statement is, “Determine if a COC is present.”

The Decision II statement is, “Determine the lateral and vertical extent of a COC.”

A.1.3.2 Alternative Actions to the Decision

If a COC is not present, further assessment of the CAS is not required. If a COC is present, resolve Decision II.

If the extent of a COC is defined in both the lateral and vertical directions, further assessment of the CAS is not required. If the extent of a COC is not defined, reevaluate site conditions and collect additional samples.

A.1.4 Step 3 - Identify the Inputs to the Decision

This step identifies the information needed, determines sources for information, determines the basis for establishing the action level, and identifies sampling and analysis methods that can meet the data requirements. To determine if a COC is present, each sample result or population parameter (Section A.1.6.1) is compared to the PAL (Section A.1.4.2). If any sample result or population parameter is greater than the PAL, then the CAS is advanced to Decision II for that analyte. This approach does not use a statistical mean/average for comparison to the PAL, but rather the individual result to identify COCs.

A.1.4.1 Information Needs and Information Sources

In order to determine if a COC is present at the CAS, sample data must be collected and analyzed following these two criteria: (1) samples must be collected in areas most likely to contain a COC and (2) the analytical suite selected must be sufficient to detect any COCs present in the samples. Biasing factors to support these criteria include:

- Documented process knowledge on source and location of release
- Field observations
- Field-screening results
- Historical sample results
- Experience and data from investigations of similar sites
- Professional judgement

In order to determine the extent of a COC for Decision II, sample data must be collected and analyzed at locations to bound the lateral and vertical extent of COCs. The data required to satisfy the information needed for each COC is a sample result that is below the PAL. Step-out locations will be selected. Samples will only be analyzed for those parameters that exceeded PALs (i.e., COCs) in

prior samples. Biasing factors to support these information needs may include the factors previously listed and Phase I analytical results.

Table A.1-4 lists the information needs, the source of information for each need, and the proposed methods to collect the data. The last column addresses the QA/QC data type and associated metric. The data type is determined by the intended use of the resulting data in decision making.

Data types are discussed in the following text. All data to be collected are classified into one of three measurement quality categories: quantitative, semiquantitative, and qualitative. The categories for measurement quality are defined below.

Quantitative Data

Quantitative data results from direct measurement of a characteristic or component within the population of interest. These data require the highest level of QA/QC in collection and measurement systems because the intended use of the data is to resolve the primary decision (i.e., rejecting or accepting the null hypothesis) and/or verifying closure standards have been met. Laboratory analytical data are usually assigned as quantitative data.

Semiquantitative Data

Semiquantitative data is generated from a measurement system that indirectly measures the quantity or amount of a characteristic or component of interest. Inferences are drawn about the quantity or amount of a characteristic or component because a correlation has been shown to exist between results from the indirect measurement and the quantitative measurement. The QA/QC requirements on semiquantitative collection and measurement systems are high, but may not be as rigorous as a quantitative measurement system. Semiquantitative data contribute to decision making, but are not generally used alone to resolve primary decisions. The data are often used to guide investigations toward quantitative data collection.

Qualitative Data

Qualitative data identifies or describes the characteristics or components of the population of interest. The QA/QC requirements for qualitative data are the least rigorous on data collection methods and measurement systems. Professional judgement is often used to generate qualitative data. The

Table A.1-4
Information Needs to Resolve the Phase I and Phase II Decisions

Information Need	Information Source	Collection Method	Data Type/Metric
Decision I: Determine if a COC is present. Criteria I: Samples must be collected in areas most likely to contain a COC.			
Source and location of release points	Process knowledge compiled during the preliminary assessment process and previous investigations of similar sites	Information documented in CSM and public reports – no additional data needed	Qualitative - CSM has not been shown to be inaccurate
	Site visit and field observations	Conduct site visits and document field observations	Qualitative - CSM has not been shown to be inaccurate
	Aerial photographs	Review and interpret aerial photographs	Semiquantitative - Sampling based on biasing criteria stipulated in DQO Step 3
	Radiological surveys	Review and interpret radiological surveys	Semiquantitative - Sampling based on biasing criteria stipulated in DQO Step 3
	Field screening	Review and interpret field-screening results	Semiquantitative - Sampling based on biasing criteria stipulated in DQO Step 3
Decision I: Determine if a COC is present. Criteria 2: Analyses must be sufficient to detect any COCs in samples.			
Identification of all potential contaminants	Process knowledge compiled during the preliminary assessment process and previous investigations of similar sites	Information reported in CSM and public reports - no additional data needed	Qualitative - CSM has not been shown to be inaccurate
Analytical results	Data packages of biased samples	Appropriate sampling techniques and approved analytical methods will be used	Quantitative - Detection limits will be less than or equal to PALs
Decision II: Determine the lateral and vertical extent of a COC.			
Identification of applicable COCs	Data packages of prior samples	Review analytical results to select COCs	Quantitative - Only COCs identified will be analyzed in future sampling events
Extent of Contamination	Field observations	Document field observations	Qualitative - CSM has not been shown to be inaccurate
	Field screening	Conduct field screening with appropriate instrumentation	Semiquantitative - FSRs will be compared to FSLs
	Phase I analytical results	Appropriate sampling techniques and approved analytical methods will be used to bound COCs	Quantitative - Validated analytical results will be compared to PALs to determine COC extent

intended use of the data is for information purposes, to refine conceptual models, and to guide investigations rather than resolve primary decisions. This measurement of quality is typically associated with historical information and data where QA/QC may be highly variable or not known. Metrics provide a tool to determine if the collected data support decision making as intended. Metrics tend to be numerical for quantitative and semiquantitative data, and descriptive for qualitative data.

A.1.4.2 Determine the Basis for the Preliminary Action Levels

Industrial site workers and construction/remediation workers may be exposed to contaminants through oral ingestion, inhalation, external (radiological), or dermal contact (absorption) of soil during disturbance of this media. Laboratory analytical results for soils will be compared to the following PALs to evaluate if COPCs are present at levels that may pose an unacceptable risk to human health and/or the environment:

- EPA *Region IX Risk-Based Preliminary Remediation Goals* for Industrial Soils (EPA, 2002).
- Background concentrations for metals are considered when natural background exceeds the PRG, as is often the case with arsenic. Background is considered the mean plus two times the standard deviation of the mean for sediment samples collected by the Nevada Bureau of Mines and Geology throughout the Nevada Test and Training Range (formerly the Nellis Air Force Range) (NBMG, 1998; Moore, 1999).
- TPH action level of 100 mg/kg per the NAC 445A.2272 (NAC, 2002).
- The PALs for radionuclides are isotope-specific and defined as the maximum concentration for the isotope found in samples from undisturbed background locations in the vicinity of the NTS (McArthur and Miller, 1989; US Ecology and Atlan-Tech, 1991; and DOE/NV, 1996).

A.1.4.3 Potential Sampling Techniques and Appropriate Analytical Methods

Field Screening

Field-screening activities may be conducted for the following analytes and/or parameters:

- *Silver* - X-ray fluorescence, or equivalent method, may be used at the CAS 03-59-02 dry well where photoprocessing chemicals were disposed.
- *Alpha and Beta/Gamma Radiation* - Handheld radiological survey equipment may be used at CAS 03-59-02 based on nuclear racks used for nuclear tests diagnostics that were stored at Building C3-45, CASs 06-51-01 and 06-51-03, because radiological contaminants were

detected in the CAU 330 UST and in the decontamination rinsate decontamination activities conducted at CAS 22-19-04. Field screening using handheld radiological survey equipment may also be used at CAS 03-59-01 due to its location in a forward area and uncertainty regarding activities that occurred there.

- *Gamma Radiation* - Gamma spectrometry, or an equivalent instrument or method, may be used at CAS 03-59-01 and CAS 03-59-02 based on previous radiological surveys and analytical results that detected radiological activity at concentrations less than PALs. Gamma radiation may also be field screened at CAS 22-19-04 based on the exposure of vehicles and personnel to gamma radiation during near-field observations of nuclear tests.

- *VOCs* - A photoionization detector, or an equivalent instrument or method, may be used to conduct headspace analysis at all CASs because VOCs are representative of general characteristics of sewage and may have been released by decontamination activities once conducted at CAS 22-19-04.

- *TPH* - A gas chromatograph, or equivalent equipment or method, may be used at all the CASs because TPH is representative of general characteristics of sewage and may have been in the decontamination rinsate from decontamination activities conducted at CAS 22-19-04. Total petroleum hydrocarbons were detected at 191 mg/kg in the CAS 06-04-02 UST located within the boundaries of CAS 06-51-01 and CAS 06-51-03.

Based on the results of previous CAU investigations and common NTS practices, the aforementioned field-screening techniques may be applied to all the CASs with the exception of silver field screening. These field-screening techniques will provide semiquantitative data that can be used to guide soil sampling activities.

Soil Sampling

Auguring, direct-push, excavation, drilling, grab sampling by hand, or other appropriate sampling methods will be used to collect soil samples for laboratory analysis. Sample collection and handling activities will be conducted in accordance with the contractor's approved procedures.

The CAIP provides the analytical methods and laboratory performance requirements (e.g., detection limits, precision, and accuracy) to be followed in Section 3.0 and Section 6.0, respectively. Sample volumes are laboratory- and method-specific and will be determined in accordance with laboratory requirements. Specific analyses required for the disposal of IDW are identified in Section 4.2.5 of this CAIP.

The analyses to be conducted for samples collected for this CAU are listed in Table A.1-5. The analyses reports VOCs, SVOCs, petroleum hydrocarbons, PCBs, metal compounds, and radionuclides included in Table A.1-6.

Table A.1-5
Analytical Methods for Laboratory Analysis

Analytical Parameter	Analytical Method	
	Liquid	Soil/Sediment/Sludge
Total Volatile Organic Compounds	SW-846 8260B[a]	SW-846 8260B[a]
Total Semivolatile Organic Compounds (including Hydroquinone at CAS 03-59-02 photoprocessing dry well)	SW-846 8270C[a]	SW-846 8270C[a]
Total RCRA Metals, plus beryllium and aluminum	SW-846 6010B[a] (mercury - 7470A[a])	SW-846 6010B[a] (mercury - 7471A[a])
Polychlorinated Biphenyls	SW-846 8082[a]	SW-846 8082[a]
Total Petroleum Hydrocarbons (C_6 - C_{38})	SW-846 8015B[a] (modified)	SW-846 8015B[a] (modified)
Gamma Spectrometry (to include Cesium-137 and Americium-241)	EPA Procedure 901.1[b]	HASL-300[c]
Strontium-90	ASTM D5811-00[d]	HASL-300[c]
Isotopic Plutonium	ASTM D3865-02[e]	ASTM C1001-00[f]
Isotopic Uranium	ASTM D3972-02[g]	ASTM C1000-02[h]

ASTM = American Society of Testing and Materials
RCRA = *Resource Conservation and Recovery Act*
SW = Solid Waste

[a]*EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition, Parts 1-4, SW-846* (EPA, 1996)
[b]*Prescribed Procedure for Measurements of Radioactivity in Drinking Water* (EPA, 1980)
[c]*The Procedures Manual of the Environmental Measurements Laboratory*, HASL-300 (DOE, 1997)
[d]*Standard Test Method for Strontium-90 in Water* (ASTM, 2000b)
[e]*Standard Test Method for Plutonium in Water* (ASTM, 2002b)
[f]*Standard Test Method for Radiochemical Determination of Plutonium in Soil by Alpha Spectroscopy* (ASTM, 2000a)
[g]*Standard Test Method for Isotopic Uranium in Water by Radiochemistry* (ASTM, 2002a)
[h]*Standard Test Method for Radiochemical Determination of Uranium Isotopes in Soil by Alpha Spectrometry* (ASTM, 2002c)

A.1.5 Step 4 - Define the Boundaries of the Study

The purpose of this step is to define the target population of interest, specify the spatial and temporal features of the population that are pertinent for decision making, determine practical constraints on data collection, and define the scale of decision making relevant to target populations for Phase I and Phase II decisions.

Table A.1-6
Analytes for CAU 516

Volatile Organic Compounds	Semi-Volatile Organic Compounds	Total Petroleum Hydrocarbons	Polychlorinated Biphenyls	Metals	Radionuclides
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene cis-1,3-Dichloropropene trans-1,2-Dichloroethene 1,2-Dichloroethane 1,2-Dichloropropane 2-Butanone 2-Hexanone 4-Methyl-2-pentanone Acetone Benzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane Ethylbenzene Methyl tertiary butyl ether Methylene chloride Styrene Tetrachloroethene Toluene trans 1,3-Dichloropropene Trichloroethene Vinyl acetate Vinyl chloride Xylene	1,2,4-Trichlorobenzene[a] 1,2-Dichlorobenzene[a] 1,3-Dichlorobenzene[a] 1,4-Dichlorobenzene[a] 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 2-Methylphenol 2-Nitroaniline 3,3'-Dichlorobenzidine 4-Bromophenyl phenyl ether 4-Chloroaniline 4-Methylphenol 4-Nitrophenol Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-chloroethoxy) methane Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl) phthalate Butyl benzyl phthalate Chrysene Dibenzo(a,h)anthracene Dibenzofuran Diethyl Phthalate Dimethyl Phthalate Di-n-butyl Phthalate Di-n-octyl Phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene[a] Hexachlorocyclopentadiene Hexachloroethane Hydroquinone[b] Indeno(1,2,3-cd)pyrene Isophorone Naphthalene[a] Nitrobenzene N-Nitroso-di-n-propylamine N-Nitrosodimethylamine N-Nitrosodiphenylamine Pentachlorophenol Phenanthrene Phenol Pyrene Pyridine	Total Petroleum Hydrocarbons [C^{6}-C^{38}]	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver Plus: Aluminum Beryllium	Americum-241 Cesium-137 Plutonium-238 Plutonium-239/240 Strontium-90 Uranium-234 Uranium-235 Uranium-238

[a]May be reported with VOCs
[b]A study is currently being conducted by the laboratory to determine the minimum detection limit.

A.1.5.1 Define the Target Population

Decision I target populations represent locations within the CAS that contain COCs, if present. Decision II target populations are locations adjacent to the COC plume where COC concentrations are less than PALs.

A.1.5.2 Identify the Spatial and Temporal Boundaries

The spatial boundaries that apply to the CASs in Phase I are the sample locations selected for Phase I. In general, geographic boundaries are defined by the impacted soil. Intrusive activities are not intended to extend into the boundaries of neighboring areas of environmental concern (e.g., other CASs). With the exception of CASs 06-51-01 and 06-51-03, the spatial boundaries that apply to Phase II activities will be 100 ft laterally and 50 ft bgs vertically. The spatial boundary of the sump piping in CAS 06-51-01 is reduced laterally and vertically by the UST that comprises CAU 330, CAS 06-51-01, located directly west of the sump piping and midway between Building 660 and the sump. The spatial boundary of the clean out box and pipe that comprises CAS 06-51-03 is also reduced laterally and vertically by the same UST located approximately 50 ft directly north.

Temporal boundaries are those time constraints set up by weather conditions and project schedules. Significant temporal constraints due to weather conditions are not expected. Moist weather may place constraints on sampling and field screening contaminated soils because of the attenuating effect of moisture in samples (e.g., alpha-emitting radionuclides). There are no time constraints on collecting samples as environmental conditions at all sites will not significantly change in the near future and conditions would have stabilized over the years since the sites were last used.

A.1.5.3 Identify Practical Constraints

Practical constraints include underground and overhead utilities, rough terrain, access restrictions such as scheduling conflicts at the NTS, posted contamination area requirements, physical barriers (e.g., fences, steep slopes), and areas requiring authorized access. Underground utilities surveys will be conducted at each CAS prior to the start of investigation activities to determine if utilities exist, and, if so, determine the limit of spatial boundaries for intrusive activities. No other practical constraints have been identified.

A.1.5.4 Define the Scale of Decision Making

The scale of decision making in Phase I is defined as each CAS. The scale of decision making in Phase II is defined as a contiguous area contaminated with any COC.

A.1.6 Step 5 - Develop a Decision Rule

This step integrates outputs from the previous step with the inputs developed in this step into a decision rule ("If..., then...") statement. This rule describes the conditions under which possible alternative actions would be chosen.

A.1.6.1 Specify the Population Parameter

The population parameter for Phase I data collected from biased sample locations is the maximum observed concentration of each COC within the target population.

The population parameter for Phase II will be the observed concentration of each unbounded COC in any sample.

A.1.6.2 Choose an Action Level

Action levels are defined as those PALs listed in Section A.1.4.2.

A.1.6.3 Decision Rule

If the population parameter of any COPC in a target population exceeds the PAL for the COPC during Phase I, then that COPC is identified as a COC and Phase II sampling will be conducted. If the Site Supervisor determines that sufficient indicators (e.g., staining) are present, then Phase II sampling will also be conducted. If all COPC concentrations are less than the corresponding PALs, then the decision will be no further action.

Sample analyses conducted during this investigation will be sufficient to characterize the contents, if any, of a septic tank for clean closure according to the NAC.

If the observed population parameter of any COC in a sample exceeds the PALs during Phase II, then additional samples will be collected to define the extent. If all observed COC population parameters

are less than PALs, then the decision will be that the extent of contamination has been defined in the lateral and/or vertical direction(s).

If contamination is inconsistent with the CSM or extends beyond the spacial boundaries, then work will be suspended and the investigation strategy will be reevaluated. If contamination is consistent with the CSM and is within spatial boundaries, then the decision will be to continue sampling to define the extent.

A.1.7 Step 6 - Specify the Tolerable Limits on Decision Errors

The sampling approach for Phases I and II relies on biased sampling locations; therefore, statistical analysis is not appropriate. Only validated analytical results (quantitative data) will be used to determine if COCs are present (Phase I) or the extent of a COC (Phase II), unless otherwise stated. The baseline condition (i.e., null hypothesis) and alternative condition for Phase I are:

- Baseline condition – A COC is present.
- Alternative condition – A COC is not present.

The baseline condition (i.e., null hypothesis) and alternative condition for Phase II are:

- Baseline condition – The extent of a COC has not been defined.
- Alternative condition – The extent of a COC has been defined.

Decisions and/or criteria have an alpha (false rejection) or beta (false acceptance) error associated with their determination (discussed in the following subsections). Since quantitative data are individually compared to action levels, statistical evaluations of the data such as averages or confidence intervals are not appropriate.

A.1.7.1 False Rejection Decision Error

The false rejection (alpha) decision error would mean:

- Deciding in Phase I that a COC is not present when it is, or
- Deciding in Phase II that the extent of a COC has been defined when it has not.

In both cases, the consequence is the increased risk to human health and the environment.

In Phase I, a false rejection decision error (where consequences are more severe) is controlled by meeting these criteria: (1) having a high degree of confidence that the sample locations selected will identify COCs if present anywhere within the CAS, and (2) having a high degree of confidence that analyses conducted will be sufficient to detect any COCs present in the samples. This error is reduced in Phase II by: (1) having a high degree of confidence that the sample locations selected will identify the extent of COCs; (2) having a high degree of confidence that analyses conducted will be sufficient to detect any COCs present in the samples; and (3) having a high degree of confidence that the dataset is of sufficient quality and completeness.

To satisfy the first criterion, Phase I data and samples will be collected in areas most likely to be contaminated by any COCs. In Phase II, data collection will sample areas that represent the lateral and vertical extent of contamination. The following characteristics are considered during both phases to accomplish the first criterion:

- Source and location of release
- Chemical nature and fate properties
- Physical transport pathways and properties
- Hydrologic drivers

These characteristics were considered during the development of the CSMs and selection of sampling locations. The biasing factors listed in Section A.1.4.1 will be used to further ensure that these criteria are met.

To satisfy the second criterion, all Phase I samples will be analyzed for the chemical and radiological parameters listed in Table A.1-1. Phase II samples will be analyzed for those chemical and radiological parameters that identified unbounded COCs.

To satisfy the third criterion, the entire dataset, as well as individual sample results, will be assessed against the DQIs of precision, accuracy, comparability, completeness, and representativeness defined in the Industrial Sites QAPP (NNSA/NV, 2002). The goal for the DQI of completeness is that 90 percent of the critical COPC results are valid for every sample. Critical COPCs are defined as those contaminants that are known or expected to be present within a CAS. In addition, sensitivity has been included as a DQI for laboratory analyses. Site-specific DQIs are discussed in more detail in

Section 6.0 of the CAIP. Strict adherence to established procedures and QA/QC protocol also protects against false negatives.

A.1.7.2 False Acceptance Decision Error

The false acceptance (beta) decision error would mean deciding that a COC is present when it is not or a COC is unbounded when it is, resulting in increased costs for unnecessary characterization.

The false acceptance decision error is controlled by protecting against false positive analytical results. False positive results are typically attributed to laboratory and/or sampling/handling errors. Quality assurance/quality control samples such as field blanks, trip blanks, laboratory control samples, and method blanks are used to determine if a false positive analytical result may have occurred. Other measures include proper decontamination of sampling equipment and using certified clean sample containers to avoid cross contamination.

A.1.7.3 Quality Assurance/Quality Control

Radiological survey instruments and field-screening equipment will be calibrated and checked in accordance with the manufacturer's instructions or approved procedures.

Quality control samples will be collected as required by the Industrial Sites QAPP (NNSA/NV, 2002) and in accordance with established procedures. The required QC samples include:

- Trip blanks (1 per sample cooler containing VOC environmental samples)
- Equipment blanks (1 per sampling event for each type of decontamination procedure)
- Source blanks (1 per source lot per sampling event)
- Field duplicates (minimum of 1 per matrix per 20 environmental samples)
- Field blanks (minimum of 1 per 20 environmental samples)
- MS/MSD (minimum of 1 each per matrix per 20 environmental samples), as required by the analytical method

Additional QC samples may be submitted based on site conditions.

A.1.8 Step 7 - Optimize the Design for Obtaining Data

Intrusive soil sampling for field screening and laboratory analysis will be conducted at CAU 516. Biased locations are determined based on biasing factors listed in Section A.1.4.1. The Site Supervisor has the discretion to modify the biased locations, but only if the modified locations meet the decision needs and criteria stipulated in Section A.1.3. The following sections provide the general approach for obtaining the information necessary to resolve Phase I and Phase II decisions.

A.1.8.1 Intrusive Investigation

Intrusive investigations will be conducted at CAU 516 to resolve the decision statements discussed in Section A.1.3. Drilling, direct-push, excavation, or other appropriate soil collection techniques will be used at select sample locations to collect soil samples for laboratory analysis. Biased locations for these activities are determined based on the biasing factors listed in Section A.1.4.1.

Phase II step-out locations at each CAS will be selected based on the outer boundary sample locations where COCs were detected, other biasing factors listed in Section A.1.4.1, and ambient and site conditions. If biasing factors indicate COCs extend beyond Phase II sample locations, further step-out locations may be necessary. If the step-out locations from different original locations approach each other, then the Site Supervisor may consider this as one area and collect samples only in an outward direction. In general, samples submitted for off-site laboratory analysis would be those that define the lateral and vertical extent of COCs.

The Site Supervisor has the discretion of modifying or replacing the biased sample locations based on biasing factors or Phase I analytical results. The proposed sample locations are discussed in the following sections.

Some of the CASs have vegetation and miscellaneous debris that will need to be moved and/or staged during site preparation activities to facilitate the investigation. Details for preparing sites for investigation will be provided by the A-E contractor to the M&O contractor prior to the start of the investigation.

A.1.8.1.1 Septic System

Piping is a septic system component in all the CASs with the exception of CASs 06-51-02 and 22-19-04. Phase I activities at these CASs will consist of excavating to locate the discharge pipes, visually inspecting the pipes for residual material, and collecting biased samples related to the operation of the septic system. Samples will be submitted for laboratory analysis from the following target population:

- COC concentrations in residual material in the septic system piping, if present
- COC concentrations in the soil beneath any detectable breaches in the septic system piping

The CASs 03-59-01 and 03-59-02 each have a septic tank. Phase I activities at these CASs will consist of excavating to locate the septic tank, inspecting inside the septic tank, and collecting biased samples for laboratory analysis from the following target populations:

- COC concentrations in the content of the septic tanks, if present
- COC concentrations in the soil underneath the inlet and outlet end pipes of the septic tanks
- COC concentrations in the soil horizon underlying the base of the septic tank ends

The CASs 03-59-01 and 03-59-02 each have one distribution box where the effluent is directed to a leachfield. Phase I activities at these CASs will consist of excavating to locate the distribution boxes, inspecting inside the distribution boxes, and collecting biased samples for laboratory analysis from the following target populations:

- COC concentrations in the content of the distribution boxes, if present
- COC concentrations in the soil horizon underlying the base of the distribution boxes

A.1.8.1.2 Leachfield

The CASs 03-59-01 and 03-59-02 each have a leachfield. Phase I activities at these CASs will consist of excavating to locate the boundaries of each leachfield, exposing the midpoint, and the proximal and distal ends of the associated perforated distribution pipes, and collecting biased samples for laboratory analysis from the following target populations:

- COC concentrations in the soil beneath the leachrock/native soil interface at the midpoint, and proximal and distal ends of the distribution pipes. If the interface cannot be identified, then samples will be collected directly beneath the distribution pipes.

A.1.8.1.3 Clean Out Box

The clean out box in CAS 06-51-03 is located directly east of the discharge pipe in CAS 06-51-01. Phase I activities at this CAS will consist of using excavation and/or hand tools to determine the relationship of the clean out box and access pipe to the discharge pipe in CAS 06-51-01, and to collect biased samples for laboratory analysis from the following target populations:

- COC concentrations in the residual material in the clean out box, if present
- COC concentrations in soil underneath the access pipe into the clean out box
- COC concentrations in the soil horizon underlying the base of the clean out box

A.1.8.1.4 Dry Well

Corrective Action Site 03-59-02 has a dry well located 8 ft northeast of the leachfield for disposal of photographic waste and a dry well connected to Building 3C-45 by a sewer line. Phase I activities will consist of confirming the presence of the dry wells and collecting samples for laboratory analysis from the following target populations:

- COC concentrations of residual material in the dry wells, if present
- COC concentrations in the soil at the leachrock/native soil interface of the dry wells

If the interface is not distinguishable, a sample will be collected at the base as shown in as-built engineering drawings, if available.

A.1.8.1.5 Sump

The CAS 22-19-04 consists of a vehicle decontamination pad, trench, and sump. Phase I activities at this CAS will consist of locating the base of the sump via excavation and collecting biased samples for laboratory analysis from the following target populations:

- COC concentrations at the rock bed/native soil interface at the center and northwest and southwest ends of the decontamination pad
- Soil at midpoint of trench between pad and sump
- COC concentrations in the soil at the lowest point in the sump

The CAS 06-51-03 includes a sump. Phase I activities will consist of collecting a biased soil sample from the lowest point in the sump and other locations, if appropriate, based on biasing factors.

A.1.8.2 Analytical Program

All samples will be submitted for off-site analysis that are collected from within the septic system piping, septic tanks, distribution boxes, and clean out boxes with a solid, impermeable base (e.g., concrete). If contamination is detected by field screening, the sample with the highest contamination concentration will be submitted. Any samples exceeding FSLs will have at least one additional sample (i.e., confirmatory sample) submitted to confirm contamination is less than PALs.

A.1.8.3 Additional Sample Collection

Additional samples may be collected and analyzed to obtain data for the purpose of managing and disposing IDW, protecting the health and ensuring the safety of field and laboratory personnel, and developing corrective action alternatives (e.g., risk assessments, remediation potential) for contaminated sites. Details of these sample collection activities are provided in Section 4.2.6.

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APPENDIX B

ANALYTICAL RESULTS

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Lionville Laboratory Use Only
06I0L089

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client NSTEC V2762

Est. Final Proj. Sampling Date

Project # G0052-001-001-0001-00

Project Contact/Phone #

Lionville Laboratory Project Manager JS

QC SW846 Del CLP TAT 7Days

Date Rec'd 10/3/06 Date Due 10/10/06

		VOA	BNA	Pest/PCB	Herb			Metal	CN
		ORGANIC						INORG	
Refrigerator #							A		
#/Type Container	Liquid						6P		
	Solid						G		
Volume	Liquid						L		
	Solid						250		
Preservatives							—		
ANALYSES REQUESTED →							DRO		

Lionville Laboratory Use Only

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ODRO
001	035902-V2			Soil	9-27-06	1050	X
002	V3			↓	↓	1055	X
003	V4			↓	↓	1100	X
004	V5				↓	1105	X
005	R1			Water	↓	1115	X
006	V1			Soil	9-28-06	1300	X
007	V6			↓	↓	1305	X

MATRIX CODES:
- S - Soil
- SE - Sediment
- SO - Solid
- SL - Sludge
- W - Water
- O - Oil
- A - Air
- DS - Drum Solids
- DL - Drum Liquids
- L - EP/TCLP Leachate
- WI - Wipe
- X - Other
- F - Fish

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[signature]	[signature]	10/3/06	1005					"COMPOSITE WASTE"	ORIGINAL REWRITTEN		

Bechtel Nevada

ANALYTICAL LABORATORY

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

PROJECT / CLIENT INFORMATION

Project: CAU 5/6 | BN Org#: 8502

Charge Number: 5B1A 21D5

Project Manager: Jeff Smith

Phone: 5-7775 | Fax: 5-7761 | M/S: NLV 306

REPORT & TURNAROUND INFORMATION

Send Report to: Brad Jackson

Phone: 5-0331 | Fax: 5-7761 | M/S: NLV 306

Turnaround: ( ) Standard – 14 days IH, 28 days Non-rad Env, 45 days Rad Env
( ) RUSH Preliminary by: _____ (IH)
__1 __2 __7 __14 (non-Rad Env)
__1 __7 __14 __28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: _____

The samples submitted contain (check);

( ) **Hazardous** - *(list)* _____

( ) **Radioactive** - *(list)* _____

( ) **Unknown** contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V27602 (Non-Rad Env) _____ (Rad Env)

Samples submitted are associated with a signed Project SOW. (X) YES ( ) NO

Analyses entered here agree with the SOW. ( ) YES ( ) NO ( ) N/A

If not, identify the variation: _____

Subcontract Lab(s) used for this work: Lionville

D/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres – Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10.21 TPH	5.61 TPH						
035902-V2	9/27/06	1050	SOIL	1	250 ml					X							
035902-V3		1055								X							
035902 - V4		1100								X							
035902 - V5		1105								X							
035902 - R1		1115	WATER		1 LTR						X						

Last Item

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
M. La Flash		9/27/06 1600	Refer		9/27/06 1600
Refer		10/2/06 0830	Mica Flash		10/2/06 0830
M. La Flash		10/2/06 0959	C.S. CASTANEDA		10/02/06 @ 1300 0959
C.S. CASTANEDA		10/02/06 @1300	Fed Ex	7905 7535 6114	10/02/06 @ 1300
Fed Ex		10/3/06 @ 1005	Victor Hernandez		10/3/06 @ 1005

BN-0732 (04/02)

Bechtel Nevada

ANALYTICAL LABORATORY

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

PROJECT / CLIENT INFORMATION

Project: CAU 516 | BN Org#: B502

Charge Number: SBIA 2105

Project Manager: Jeff Smith

Phone: 5-7775 | Fax: 57761 | M/S: NTS 306

REPORT & TURNAROUND INFORMATION

Send Report to: BRAD Jackson

Phone: 50331 | Fax: 5-7761 | M/S: NTS 306

Turnaround: ( ) Standard – 14 days IH, 28 days Non-rad Env, 45 days Rad Env
( ) RUSH Preliminary by: _____ (IH)
__1 __2 X 7 __14 (non-Rad Env)
__1 __7 __14 __28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: _____

The samples submitted contain (check):
( ) **Hazardous** - *(list)* _____
( ) **Radioactive** - *(list)* _____
( ) **Unknown** contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V2762 (Non-Rad Env) _____ (Rad Env)

Samples submitted are associated with a signed Project SOW. (X) YES ( ) NO

Analyses entered here agree with the SOW. ( ) YES ( ) NO ( ) N/A

If not, identify the variation: _____

Subcontract Lab(s) used for this work: LIONVILLE

ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres – Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10-21 TPH
035902-V1	9/28/06	1300	SOIL	2	250					X
035902-V6	9/28/06	1305	SOIL	1	250					X

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Mike Floyd		9/28/06 1600	Refer		9/28/06 1600
Refer		10/2/06 0830	Mike Floyd		10/2/06 0830
Mike Floyd		10/2/06 0954	C.J. CASTANEDA		10/02/06 @ 0954
C.J. CASTANEDA		10/02/06 @ 1300	Fed Ex	7905 7535 6114	10/02/06 @ 1300
Fed Ex		10/3/06 @ 1005	VICTOR HERNANDEZ		10-3-06 @ 1005

BN-0732 (04/02)

Lionville Laboratory Use Only

0610L105

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client NSTEC V2764

Est. Final Proj. Sampling Date

Project # 60052-001-001-0001-00

Project Contact/Phone #

Lionville Laboratory Project Manager JS

QC Sub46 Del Cup TAT 7Days

Date Rec'd 10/5/06 Date Due 10/12/06

Refrigerator #		A																
#/Type Container	Liquid	G																
	Solid																	
Volume	Liquid	L																
	Solid	250																
Preservatives		—																
ANALYSES REQUESTED →		ORGANIC												INORG				
		VOA	BNA	Pest/PCB	Herb									Metal	CN			

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only											
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, - EP/TCLP Leachate, - Wipe, - Other, - Fish																			
	001	035901-V1			Soil	10-2-06	1245												
	002	V2					1250												
	003	V3					1255												
	004	V4					1300												
	005	V5					1305												
	006	V6					1310												
	007	R1			Water		1315												

Special Instructions:

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Relinquished by	Received by	Date	Time
[illegible]		10/5/06	0950

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
COMPOSITE			

Bechtel Nevada

ANALYTICAL LABORATORY

SERVICES REQUEST AND CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT / CLIENT INFORMATION

Project: CAU 5/6 | BN Org#: 3502

Charge Number: 5B1A2105

Project Manager: Jeff Smith

Phone: 5-7775 | Fax: 5-7761 | M/S: NTS 306

REPORT & TURNAROUND INFORMATION

Send Report to: BRAD Jackson

Phone: 5-0831 | Fax: 5-7761 | M/S: NTS 306

Turnaround: ( ) Standard – 14 days IH, 28 days Non-rad Env, 45 days Rad Env
( ) RUSH Preliminary by: _____ (IH)
__1 __2 X7 __14 (non-Rad Env)
__1 __7 __14 __28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: _____

The samples submitted contain (check);
( ) **Hazardous** - *(list)* _____
( ) **Radioactive** - *(list)* _____
( ) **Unknown** contamination. If known, identify contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

SAMPLE MANAGEMENT INFORMATION

DG: _____ (IH) V2764 (Non-Rad Env) _____ (Rad Env)

Samples submitted are associated with a signed Project SOW. (X) YES ( ) NO

Analyses entered here agree with the SOW. (X) YES ( ) NO ( ) N/A

If not, identify the variation: _____

Subcontract Lab(s) used for this work: LIONVILLE

ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres – Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10.21 TPH	5.61 TPH
035901-V1	10/2/06	1245	Soil	1	250mL					X	
035901-V2		1250		1						X	
035901-V3		1255		1						X	
035901-V4		1300		1						X	
035901-V5		1305		1						X	
035901-V6		1310		1						X	
035901-R1		1315	WATER	1	L						X

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	DATE / TIME	Received by (print)	Signature	DATE / TIME
Mike Floyd		10/2/06 1600	Refer		10/2/06 1600
REFRIGERATOR		10/4/06 0730	BEN McGEE		10/4/06 0730
BEN McGEE		10/04/06 @ 0749	C.D. CASTANEDA		10/04/06 @ 0749
C.D. CASTANEDA		10/04/06 @ 1300	Fed Ex	7928 6030 7375	10/04/06 @ 1300
Fed Ex		10/5/06 @ 0950	VICTOR HERNANDEZ		10/5/06 @ 0950

BN-0732 (04/02)

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 10/10/06 14:17

RFW Batch Number: **0610L089** Client: **NSTEC V2762** Work Order: 60052001001 Page: 1

	Cust ID:	035902-V2	035902-V2	035902-V2	035902-V3	035902-V4	035902-V5
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	004
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		73 %	72 %	75 %	76 %	76 %	70 %
Diesel Range Organics		1300 J	75 %	79 %	2000 J	1200 J	1800 J
Motor Oil Range Organics		10700 U	NS	NS	5100 J	10600 U	4000 J

	Cust ID:	035902-R1	035902-V1	035902-V6	BLK	BLK BS	BLK BSD
Sample Information	RFW#:	005	006	007	06LE0807-MB1	06LE0807-MB1	06LE0807-MB1
	Matrix:	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		72 %	72 %	73 %	49 %	69 %	77 %
Diesel Range Organics		62 J	1800 J	1400 J	3330 U	73 %	86 %
Motor Oil Range Organics		300 U	11100 U	11100 U	10000 U	NS	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Sample Information	Cust ID:	**BLK**	**BLK BS**	**BLK**	**BLK BS**	**BLK BSD**
	RFW#:	**06LE0801-MB1**	**06LE0801-MB1**	**06LE0802-MB1**	**06LE0802-MB1**	**06LE0802-MB1**
	Matrix:	SOIL	SOIL	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/L	ug/L	ug/L
p-Terphenyl		72 %	77 %	73 %	82 %	85 %
Diesel Range Organics		3330 U	77 %	100 U	84 %	82 %
Motor Oil Range Organics		10000 U	NS	300 U	NS	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 10/13/06 10:47

RFW Batch Number: 0610L105 Client. NSTEC V2764 Work Order. 60052001001 Page: 1

	Cust ID:	035901-V1	035901-V2	035901-V3	035901-V4	035901-V5	035901-V6
Sample Information	RFW#:	001	002	003	004	005	006
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F..	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		66 %	73 %	70 %	72 %	71 %	65 %
Diesel Range Organics		3100 J	2600 J	2200 J	2100 J	2200 J	1700 J
Motor Oil Range Organics		10000 J	4700 J	5400 J	4700 J	5300 J	10500 U

	Cust ID:	035901-R1	BLK	BLK BS	BLK BSD	BLK	BLK BS
Sample Information	RFW#:	007	06LE0812-MB1	06LE0812-MB1	06LE0812-MB1	06LE0811-MB1	06LE0811-MB1
	Matrix:	WATER	SOIL	SOIL	SOIL	WATER	WATER
	D.F..	1.00	1.00	1.00	1.00	1.00	1.00
	Units.	ug/L	ug/kg	ug/kg	ug/kg	ug/L	ug/L
p-Terphenyl		71 %	78 %	77 %	73 %	79 %	66 %
Diesel Range Organics		73 J	3330 U	82 %	78 %	100 U	59 %
Motor Oil Range Organics		300 U	10000 U	NS	NS	300 U	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Cust ID: **BLK BSD**

Sample Information
RFW#: **06LE0811-MB1**
Matrix: WATER
D.F.: 1.00
Units: ug/L

p-Terphenyl	68	%
Diesel Range Organics	60	%
Motor Oil Range Organics	NS	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-004

Client Sample ID: 516-035901-WC3
Collection Date: 7/26/2006 4:08:00 PM
Matrix: SLUDGE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	0.077	0.0050		mg/L	1	8/2/2006 6:30:00 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	8/2/2006 6:30:00 PM
Surr: Toluene-d8	99.1	70-130		%REC	1	8/2/2006 6:30:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	1	8/2/2006 6:30:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-003

Client Sample ID: 516-035901-WC2
Collection Date: 7/26/2006 4:12:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	ND	0.0050		mg/L	1	7/28/2006 4:49:00 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/28/2006 4:49:00 PM
Surr: Toluene-d8	97.8	70-130		%REC	1	7/28/2006 4:49:00 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	7/28/2006 4:49:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-002

Client Sample ID: 516-035901-WC1
Collection Date: 7/26/2006 3:51:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	ND	0.0050		mg/L	1	7/28/2006 4:11:00 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	7/28/2006 4:11:00 PM
Surr: Toluene-d8	98.1	70-130		%REC	1	7/28/2006 4:11:00 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	7/28/2006 4:11:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035901-TB
Lab Order:	L0607193	**Collection Date:**	7/26/2006
Project:	V2722		
Lab ID:	L0607193-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY GC/MS		**SW8260B**				Analyst: **JRW-I**
1,4-Dichlorobenzene	ND	5.0		µg/L	1	7/28/2006 3:34:00 PM
Surr: Dibromofluoromethane	103	62-139		%REC	1	7/28/2006 3:34:00 PM
Surr: Toluene-d8	99.7	71-125		%REC	1	7/28/2006 3:34:00 PM
Surr: 4-Bromofluorobenzene	95.4	53-124		%REC	1	7/28/2006 3:34:00 PM

Strontium-90 Analysis by GFPC Sample Results Summary

Client Name: Bechtel Nevada
Client Project Name: CAU 516-1 Septic Tank
Client Project Number: V2666

Laboratory Name: Paragon Analytics
PAI Work Order: 0604158

Reported on: Wednesday, May 03, 2006 3:41:47 PM

Lab Sample ID	Client Sample ID	Sample Type	Nuclide	Result +/- 2 s TPU	MDC	Units	Matrix	Prep Batch	Date Analyzed	Flags
0604158-1	035902-WC1	Sample	Sr-90	5.46E-01 +/- 2.47E-01	3.91E-01	pCi/l	WATER	SR060425-2	4/29/2006	LT
0604158-2	035902-WC2	Sample	Sr-90	2.13E-01 +/- 1.75E-01	3.24E-01	pCi/l	WATER	SR060425-2	4/29/2006	U
0604158-3	035902-WC3	Sample	Sr-90	1.20E-01 +/- 1.01E-01	1.88E-01	pCi/g	SLUDGE	SR060428-1	5/2/2006	U
0604158-4	035902-WC4	Sample	Sr-90	6.05E-02 +/- 9.44E-02	1.84E-01	pCi/g	SLUDGE	SR060428-1	5/2/2006	U

Comments:

Data Package ID: *SR0604158-1*

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

LT - Result is less than Requested MDC, greater than sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

M - The requested MDC was not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Lionville Laboratory, Inc.

Semivolatiles by GC/MS, TCLP Leachate

RFW Batch Number: **0604L821** Client: **BECHTEL NEVADA V2665** Work Order: 60052001001 Report Date: 05/05/06 13:46 Page: 1a

	Cust ID:	035902-WC1		035902-WC2		035902-WC3		035902-WC3		035902-WC4		SBLKXB	
Sample Information	RFW#:	010		011		012		012 DL		013		06LE0341-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		10.0		1.00		1.00	
	Units:	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Surrogate Recovery	Nitrobenzene-d5	75	%	68	%	83	%	64	%	45	%	83	%
	2-Fluorobiphenyl	56	%	56	%	67	%	47	%	49	%	74	%
	p-Terphenyl-d14	88	%	84	%	100	%	70	%	81	%	109	%
	Phenol-d5	38	%	68	%	84	%	59	%	55	%	81	%
	2-Fluorophenol	53	%	64	%	84	%	50	%	37	%	81	%
	2,4,6-Tribromophenol	62	%	64	%	85	%	45	%	69	%	79	%
Pyridine		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
1,4-Dichlorobenzene		0.050	U	0.050	U	0.016	J	1.0	U	0.050	U	0.050	U
2-Methylphenol		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
3/4-Methylphenol		0.050	U	0.050	U	3.2	E	2.3	D	0.050	U	0.050	U
Hexachloroethane		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
Nitrobenzene		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
Hexachlorobutadiene		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
2,4,6-Trichlorophenol		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
2,4,5-Trichlorophenol		0.12	U	0.12	U	0.25	U	2.5	U	0.12	U	0.12	U
2,4-Dinitrotoluene		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
Hexachlorobenzene		0.050	U	0.050	U	0.10	U	1.0	U	0.050	U	0.050	U
Pentachlorophenol		0.12	U	0.12	U	0.25	U	2.5	U	0.12	U	0.12	U

*= Outside of EPA CLP QC limits.

	Cust ID:	**SBLKXB BS**		**SBLKXB BSD**		**LCHBLK**		**LCHBLK**	
Sample Information	RFW#:	**06LE0341-MB1**		**06LE0341-MB1**		**06LTF038-LB1**		**06LTO040-LB1**	
	Matrix:	WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		1.00	
	Units:	mg/L		mg/L		mg/L		mg/L	
Surrogate Recovery	Nitrobenzene-d5	80	%	72	%	77	%	76	%
	2-Fluorobiphenyl	73	%	69	%	68	%	66	%
	p-Terphenyl-d14	93	%	82	%	89	%	93	%
	Phenol-d5	85	%	77	%	80	%	79	%
	2-Fluorophenol	75	%	73	%	75	%	73	%
	2,4,6-Tribromophenol	80	%	77	%	68	%	72	%
Pyridine		70	%	65	%	0.050	U	0.050	U
1,4-Dichlorobenzene		62	%	60	%	0.050	U	0.050	U
2-Methylphenol		90	%	84	%	0.050	U	0.050	U
3/4-Methylphenol		91	%	85	%	0.050	U	0.050	U
Hexachloroethane		60	%	58	%	0.050	U	0.050	U
Nitrobenzene		83	%	77	%	0.050	U	0.050	U
Hexachlorobutadiene		65	%	64	%	0.050	U	0.050	U
2,4,6-Trichlorophenol		77	%	82	%	0.050	U	0.050	U
2,4,5-Trichlorophenol		84	%	85	%	0.12	U	0.12	U
2,4-Dinitrotoluene		96	%	88	%	0.050	U	0.050	U
Hexachlorobenzene		92	%	87	%	0.050	U	0.050	U
Pentachlorophenol		70	%	98	%	0.12	U	0.12	U

*= Outside of EPA CLP QC limits.

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035901-WC1
Lab Order:	L0607193	**Collection Date:**	7/26/2006 3:51:00 PM
Project:	V2722		
Lab ID:	L0607193-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		SW1311/8260				Analyst: JRW-I
1,4-Dichlorobenzene	ND	0.0050		mg/L	1	7/28/2006 4:11:00 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	7/28/2006 4:11:00 PM
Surr: Toluene-d8	98.1	70-130		%REC	1	7/28/2006 4:11:00 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	7/28/2006 4:11:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035901-WC2
Lab Order:	L0607193	**Collection Date:**	7/26/2006 4:12:00 PM
Project:	V2722		
Lab ID:	L0607193-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	ND	0.0050		mg/L	1	7/28/2006 4:49:00 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/28/2006 4:49:00 PM
Surr: Toluene-d8	97.8	70-130		%REC	1	7/28/2006 4:49:00 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	7/28/2006 4:49:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035901-WC3
Lab Order:	L0607193	**Collection Date:**	7/26/2006 4:08:00 PM
Project:	V2722		
Lab ID:	L0607193-004	**Matrix:**	SLUDGE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	0.077	0.0050		mg/L	1	8/2/2006 6:30:00 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	8/2/2006 6:30:00 PM
Surr: Toluene-d8	99.1	70-130		%REC	1	8/2/2006 6:30:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	1	8/2/2006 6:30:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035901-WC4
Lab Order:	L0607193	**Collection Date:**	7/26/2006 4:18:00 PM
Project:	V2722		
Lab ID:	L0607193-005	**Matrix:**	SLUDGE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		SW1311/8260				Analyst: JRW-I
1,4-Dichlorobenzene	0.47	0.050		mg/L	10	8/2/2006 10:21:00 PM
Surr: Dibromofluoromethane	99.1	70-130		%REC	10	8/2/2006 10:21:00 PM
Surr: Toluene-d8	98.1	70-130		%REC	10	8/2/2006 10:21:00 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	10	8/2/2006 10:21:00 PM

CLIENT: Bechtel Nevada
Work Order: L0607193
Project: V2722

ANALYTICAL QC SUMMARY REPORT

8260_W

Test Method: SW8260B

Sample ID: 060728-8260w-MB	SampType: MBLK	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: L_VOAMS-1_060728B
	Batch ID: R29278	TestNo: SW8260B		Analysis Date: 7/28/2006	SeqNo: 267195

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	ND	5.0									

Sample ID: 8260/624 ccv 5	SampType: LCS	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: L_VOAMS-1_060728B
	Batch ID: R29278	TestNo: SW8260B		Analysis Date: 7/28/2006	SeqNo: 267196

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	51.79	5.0	50	0	104	73	115	0	0		

Sample ID: 8260/624 ccv 5	SampType: LCSD	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: L_VOAMS-1_060728B
	Batch ID: R29278	TestNo: SW8260B		Analysis Date: 7/28/2006	SeqNo: 267197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	52.74	5.0	50	0	105	73	115	51.79	1.82	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J1 - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Work Order: L0607193
Project: V2722

ANALYTICAL QC SUMMARY REPORT

TCLP_8260

Test Method: TCLP 8260

Sample ID: 060728-TCLP-MB SampType: MBLK TestCode: TCLP_8260 Units: mg/L Prep Date: 7/28/2006 Run ID: L_VOAMS-1_060728A
Batch ID: 8166 TestNo: SW1311/8260 Analysis Date: 7/28/2006 SeqNo: 267190

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0050	0	0	0	0	0	0	0		
Surr: Dibromofluoromethane	0.05204	0.0050	0.05	0	104	70	130	0	0		
Surr: Toluene-d8	0.04964	0.0050	0.05	0	99.3	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.0465	0.0050	0.05	0	93	70	130	0	0		

Sample ID: 060801-1311-MB SampType: MBLK TestCode: TCLP_8260 Units: mg/L Prep Date: 8/1/2006 Run ID: L_VOAMS-1_060802A
Batch ID: 8182 TestNo: SW1311/8260 Analysis Date: 8/2/2006 SeqNo: 267297

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0050									
Surr: Dibromofluoromethane	0.05205	0.0050	0.05	0	104	70	130	0	0		
Surr: Toluene-d8	0.04924	0.0050	0.05	0	98.5	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.04899	0.0050	0.05	0	98	70	130	0	0		

Sample ID: 060728-TCLP-LCS SampType: LCS TestCode: TCLP_8260 Units: mg/L Prep Date: 7/28/2006 Run ID: L_VOAMS-1_060728A
Batch ID: 8166 TestNo: SW1311/8260 Analysis Date: 7/28/2006 SeqNo: 267192

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	0.05274	0.0050	0.05	0	105	54	140	0	0		
Surr: Dibromofluoromethane	0.05072	0.0050	0.05	0	101	70	130	0	0		
Surr: Toluene-d8	0.05086	0.0050	0.05	0	102	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.05098	0.0050	0.05	0	102	70	130	0	0		

ample ID: 8260/624 ccv 5 SampType: LCS TestCode: TCLP_8260 Units: mg/L Prep Date: Run ID: L_VOAMS-1_060802A
Batch ID: 8182 TestNo: SW1311/8260 Analysis Date: 8/2/2006 SeqNo: 267299

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	0.05346	0.0050	0.05	0	107	54	140	0	0		
Surr: Dibromofluoromethane	0.05008	0.0050	0.05	0	100	70	130	0	0		
Surr: Toluene-d8	0.04969	0.0050	0.05	0	99.4	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
C - Unspiked sample >5 times the amount spiked
B - Analyte detected in the associated Method Blank
Jl - MS or MSD outside acceptance limits. LCS acceptable.
R - RPD outside accepted recovery limits
J - This concentration is considered an estimate due to LCS failure.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Work Order: L0607193
Project: V2722

ANALYTICAL QC SUMMARY REPORT

TCLP_8260

Test Method: TCLP 8260

Sample ID: 8260/624 ccv 5	SampType: LCS	TestCode: TCLP_8260	Units: mg/L	Prep Date:	Run ID: L_VOAMS-1_060802A
	Batch ID: 8182	TestNo: SW1311/8260		Analysis Date: 8/2/2006	SeqNo: 267299

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.04813	0.0050	0.05	0	96.3	70	130	0	0		

Sample ID: 060728-TCLP-LCSD	SampType: LCSD	TestCode: TCLP_8260	Units: mg/L	Prep Date: 7/28/2006	Run ID: L_VOAMS-1_060728A
	Batch ID: 8166	TestNo: SW1311/8260		Analysis Date: 7/28/2006	SeqNo: 267191

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	0.05179	0.0050	0.05	0	104	54	140	0.05274	1.82	20	
Surr: Dibromofluoromethane	0.05111	0.0050	0.05	0	102	70	130	0	0	0	
Surr: Toluene-d8	0.04974	0.0050	0.05	0	99.5	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	0.05069	0.0050	0.05	0	101	70	130	0	0	0	

Sample ID: 8260/624 ccv 5	SampType: LCSD	TestCode: TCLP_8260	Units: mg/L	Prep Date:	Run ID: L_VOAMS-1_060802A
	Batch ID: 8182	TestNo: SW1311/8260		Analysis Date: 8/2/2006	SeqNo: 267298

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,4-Dichlorobenzene	0.05491	0.0050	0.05	0	110	54	140	0.05346	2.68	20	
Surr: Dibromofluoromethane	0.05056	0.0050	0.05	0	101	70	130	0	0	0	
Surr: Toluene-d8	0.05016	0.0050	0.05	0	100	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	0.04992	0.0050	0.05	0	99.8	70	130	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

J1 - MS or MSD outside acceptance limits. LCS acceptable.

J - This concentration is considered an estimate due to LCS failure.

C - Unspiked sample >5 times the amount spiked

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: *04-Aug-06*

Southwest Analytical, Inc.

Sample Receipt Checklist

Client Name BECNEV

Date and Time Receive 7/27/06 3:00:00 PM

Work Order Numbe L0607193

Received by CS-LV

Checklist completed b Signature CS Date 7/27/06

Reviewed by Initials Date

Matrix

Carrier name Courier

Shipping container/cooler in good condition?	Yes [ ]	No [ ]	Not Presen [✓]
Custody seals intact on shippping container/cooler?	Yes [✓]	No [ ]	Not Presen [ ]
Custody seals intact on sample bottles?	Yes [✓]	No [ ]	Not Presen [ ]
Chain of custody present?	Yes [✓]	No [ ]	
Chain of custody signed when relinquished and received?	Yes [✓]	No [ ]	
Chain of custody agrees with sample labels?	Yes [✓]	No [ ]	
Samples in proper container/bottle?	Yes [✓]	No [ ]	
Sample containers intact?	Yes [✓]	No [ ]	
Sufficient sample volume for indicated test?	Yes [✓]	No [ ]	
All samples received within holding time?	Yes [✓]	No [ ]	
Container/Temp Blank temperature in compliance?	Yes [✓]	No [ ]	
Water - VOA vials have zero headspace?	No VOA vials submitted [ ]	Yes [✓]	No [ ]
Water - pH acceptable upon receipt?	Yes [✓]	No [ ]	

Adjusted? Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

Southwest Analytical, Inc.

Earth ◣ Water ◣ Air

Remit To: Southwest Analytical, Inc
Accounts Receivable
4208 Arcata Way, Suite A
N. Las Vegas, NV 89030
Phone- (702) 657-1010

Bill To: Bechtel Nevada
P.O. Box 98521, M/S NSF025
Las Vegas, NV 89193-8521
Attn- Cathy Carey
Phone- (702) 295-1317

Report To: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
Attn- Kevin Campbell/Brad Jackson
Phone- (702) 295-5577
Fax- (702) 295-7761

Invoice: *L0607193*

Invoice Date: August 04, 2006
Date Received: July 27, 2006

Sales Representative: Word, Wayne
Quote Number: 200

Client ID: BECNEV
State Code:

Project Name: V2722
Project Number:
Customer PO:

Quanity	Description	Unit Price	Extension
4	TCLP 8260	$212.50	$850.00
1	TCLP RCRA 7 Metals (Soil)	$82.00	$82.00
2	TCLP RCRA 8 (Soil)	$180.25	$360.50
1	Volatile Organic Compounds by EPA 8260 (Aqueous)	$150.00	$150.00

Thank You for Your Business.

Subtotal:	**$1,442.50**
Discount:	0.00%
Surcharge:	0.00%
Misc Charges:	$0.00
Payment Received:	$0.00
INVOICE Total:	**$1,442.50**

Net 30 days from Invoice Date. We accept Visa and Mastercard. Past due balances are subject to a finance Charge of 1.5% per month (18% per year). Any adjustments to this invoice must be submitted within 30 days of Invoice Date.

CLIENT: Bechtel Nevada
Work Order: L0607193
Project: V2722

ANALYTICAL QC SUMMARY REPORT

6010W_T

Test Method: SW 6010B

Sample ID: L0607193-006Ams SampType: MS TestCode: 6010W_T Units: µg/L Prep Date: 8/1/2006 Run ID: L_ICP-1_060802D
Batch ID: 8179 TestNo: SW6010B Analysis Date: 8/2/2006 SeqNo: 267266

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1350	50	1250	0	108	75	125	0	0		
Barium	1698	25	1250	293.8	112	75	125	0	0		
Cadmium	1562	25	1250	8.565	124	75	125	0	0		
Chromium	1452	25	1250	13.32	115	75	125	0	0		
Lead	1422	50	1250	20.73	112	75	125	0	0		
Selenium	1384	100	1250	0	111	75	125	0	0		
Silver	1272	75	1250	0	102	75	125	0	0		

Sample ID: L0607193-006Amsd SampType: MSD TestCode: 6010W_T Units: µg/L Prep Date: 8/1/2006 Run ID: L_ICP-1_060802D
Batch ID: 8179 TestNo: SW6010B Analysis Date: 8/2/2006 SeqNo: 267267

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1358	50	1250	0	109	75	125	1350	0.554	20	
Barium	1670	25	1250	293.8	110	75	125	1698	1.69	20	
Cadmium	1542	25	1250	8.565	123	75	125	1562	1.29	20	
Chromium	1443	25	1250	13.32	114	75	125	1452	0.587	20	
Lead	1409	50	1250	20.73	111	75	125	1422	0.883	20	
Selenium	1372	100	1250	0	110	75	125	1384	0.798	20	
Silver	1272	75	1250	0	102	75	125	1272	0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - This concentration is considered an estimate due to LCS failure.
M - MS or MSD outside acceptance limits. LCS acceptable.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *04-Aug-06*

Southwest Analytical, Inc.

Earth ▲ Water ▲ Air

CLIENT: Bechtel Nevada
Work Order: L0607193
Project: V2722

ANALYTICAL QC SUMMARY REPORT

6010W_T

Test Method: SW 6010B

Sample ID: **MB-8179** SampType: **MBLK** TestCode: **6010W_T** Units: **µg/L** Prep Date: **8/1/2006** Run ID: **L_ICP-1_060802D**
Batch ID: **8179** TestNo: **SW6010B** Analysis Date: **8/2/2006** SeqNo: **267273**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	10									
Barium	ND	5.0									
Cadmium	ND	5.0									
Chromium	ND	5.0									
Lead	ND	10									
Selenium	ND	20									
Silver	ND	15									

Sample ID: **LCS-8179** SampType: **LCS** TestCode: **6010W_T** Units: **µg/L** Prep Date: **8/1/2006** Run ID: **L_ICP-1_060802D**
Batch ID: **8179** TestNo: **SW6010B** Analysis Date: **8/2/2006** SeqNo: **267272**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	247.6	10	250	0	99	85	115	0	0		
Barium	269.8	5.0	250	0	108	85	115	0	0		
Cadmium	263.7	5.0	250	0	105	85	115	0	0		
Chromium	277.7	5.0	250	0	111	85	115	0	0		
Lead	275.6	10	250	0	110	85	115	0	0		
Selenium	247.5	20	250	0	99	85	115	0	0		
Silver	243	15	250	0	97.2	85	115	0	0		

Qualifiers:

ND - Not Detected at the Reporting Limit
J1 - MS or MSD outside accepance limits. LCS acceptable.
J - This concentration is considered an estimate due to LCS failure.
C - Unspiked sample >5 times the amount spiked
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Date: *04-Aug-06*

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT:	Bechtel Nevada	**Client Sample ID:**	516-035902-WC7
Lab Order:	L0607193	**Collection Date:**	7/26/2006
Project:	V2722		
Lab ID:	L0607193-008	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY EPA 6010 (AQ: ICP / OES)	**SW6010B**					Analyst: **LBG-I**
Silver	ND	100		µg/L	1	8/2/2006 6:09:00 PM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-007

Client Sample ID: 516-035902-WC6
Collection Date: 7/26/2006 4:47:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY EPA 6010 (AQ: ICP / OES)		**SW6010B**				Analyst: **LBG-I**
Arsenic	ND	50		µg/L	1	8/2/2006 6:09:00 PM
Barium	290	25		µg/L	1	8/2/2006 6:09:00 PM
Cadmium	ND	25		µg/L	1	8/2/2006 6:09:00 PM
Chromium	ND	25		µg/L	1	8/2/2006 6:09:00 PM
Lead	ND	50		µg/L	1	8/2/2006 6:09:00 PM
Selenium	ND	100		µg/L	1	8/2/2006 6:09:00 PM
Silver	ND	75		µg/L	1	8/2/2006 6:09:00 PM
MERCURY VIA, TCLP LEACHED		**SW1311/7470**				Analyst: **LBG-I**
Mercury	ND	0.50		µg/L	1	8/4/2006 11:00:00 AM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-006

Client Sample ID: 516-035902-WC5
Collection Date: 7/26/2006 4:44:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL METALS BY EPA 6010 (AQ: ICP / OES)		**SW6010B**				Analyst: **LBG-I**
Arsenic	ND	50		µg/L	1	8/2/2006 6:09:00 PM
Barium	290	25		µg/L	1	8/2/2006 6:09:00 PM
Cadmium	ND	25		µg/L	1	8/2/2006 6:09:00 PM
Chromium	ND	25		µg/L	1	8/2/2006 6:09:00 PM
Lead	ND	50	*	µg/L	1	8/2/2006 6:09:00 PM
Selenium	ND	100		µg/L	1	8/2/2006 6:09:00 PM
Silver	ND	75		µg/L	1	8/2/2006 6:09:00 PM
MERCURY VIA, TCLP LEACHED		**SW1311/7470**				Analyst: **LBG-I**
Mercury	ND	0.50		µg/L	1	8/4/2006 11:00:00 AM

Southwest Analytical, Inc.

Date: *04-Aug-06*

CLIENT: Bechtel Nevada
Lab Order: L0607193
Project: V2722
Lab ID: L0607193-005

Client Sample ID: 516-035901-WC4
Collection Date: 7/26/2006 4:18:00 PM
Matrix: SLUDGE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP TOTAL		**SW1311/8260**				Analyst: **JRW-I**
1,4-Dichlorobenzene	0.47	0.050		mg/L	10	8/2/2006 10:21:00 PM
Surr: Dibromofluoromethane	99.1	70-130		%REC	10	8/2/2006 10:21:00 PM
Surr: Toluene-d8	98.1	70-130		%REC	10	8/2/2006 10:21:00 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	10	8/2/2006 10:21:00 PM

Southwest Analytical, Inc.

Earth ▲ Water ▲ Air

CLIENT: Bechtel Nevada
Work Order: L0608213
Project: V2738

ANALYTICAL QC SUMMARY REPORT

BOD5 **Test Method:** SM5210B

Sample ID: MB-R29609	SampType: MBLK	TestCode: BOD5	Units: mg/L	Prep Date: 8/30/2006	Run ID: L_MB_060830D
	Batch ID: 8252	TestNo: SM5210 B		Analysis Date: 8/30/2006	SeqNo: 269002

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
BOD	ND	2.0									

Sample ID: LCS-R29609	SampType: LCS	TestCode: BOD5	Units: mg/L	Prep Date: 8/30/2006	Run ID: L_MB_060830D
	Batch ID: 8252	TestNo: SM5210 B		Analysis Date: 8/30/2006	SeqNo: 269001

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
BOD	225.1	2.0	198	0	114	84.6	115.4	0	0		

Sample ID: LCSD	SampType: LCSD	TestCode: BOD5	Units: mg/L	Prep Date: 8/30/2006	Run ID: L_MB_060830D
	Batch ID: 8252	TestNo: SM5210 B		Analysis Date: 8/30/2006	SeqNo: 269004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
BOD	220.9	2.0	198	0	112	84.6	115.4	0	0	15	

Sample ID: L0608213-001A DUP	SampType: DUP	TestCode: BOD5	Units: mg/L	Prep Date: 8/30/2006	Run ID: L_MB_060830D
	Batch ID: 8252	TestNo: SM5210 B		Analysis Date: 8/30/2006	SeqNo: 269003

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
BOD	64.87	2.0	0	0	0	0	0	0	0	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - This concentration is considered an estimate due to LCS failure.

J1 - MS or MSD outside accepance limits. LCS acceptable.

C - Unspiked sample >5 times the amount spiked

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: *06-Sep-06*

CLIENT: National Security Technologies, LLC
Work Order: L0608227
Project: V2739

TCLP_HG

ANALYTICAL QC SUMMARY REPORT

Test Method: SW 846 Revision III, TCL

Qualifiers:

ND - Not Detected at the Reporting Limit

J1 - MS or MSD outside acceptance limits. LCS acceptable.

J - This concentration is considered an estimate due to LCS failure.

C - Unspiked sample >5 times the amount spiked

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: *07-Sep-06*

Southwest Analytical, Inc.

Earth ▲ Water ▲ Air

CLIENT: National Security Technologies, LLC
Work Order: L0608227
Project: V2739

ANALYTICAL QC SUMMARY REPORT

TCLP_HG

Test Method: SW 846 Revision III, TCL

Sample ID: MB-8261	SampType: MBLK	TestCode: TCLP_HG	Units: µg/L	Prep Date: 9/7/2006	Run ID: R_HG-1_060907A
	Batch ID: 8261	TestNo: SW1311/7470		Analysis Date: 9/7/2006	SeqNo: 269113

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.50									

Sample ID: LCS-8261	SampType: LCS	TestCode: TCLP_HG	Units: µg/L	Prep Date: 9/7/2006	Run ID: R_HG-1_060907A
	Batch ID: 8261	TestNo: SW1311/7470		Analysis Date: 9/7/2006	SeqNo: 269112

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.08	0.50	5	0	102	85	115	0	0		

Sample ID: L0608227-002Ams	SampType: MS	TestCode: TCLP_HG	Units: µg/L	Prep Date: 9/7/2006	Run ID: R_HG-1_060907A
	Batch ID: 8261	TestNo: SW1311/7470		Analysis Date: 9/7/2006	SeqNo: 269109

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.66	0.50	5	0	113	75	125	0	0		

Sample ID: L0608227-002Amsd	SampType: MSD	TestCode: TCLP_HG	Units: µg/L	Prep Date: 9/7/2006	Run ID: R_HG-1_060907A
	Batch ID: 8261	TestNo: SW1311/7470		Analysis Date: 9/7/2006	SeqNo: 269110

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.96	0.50	5	0	119	75	125	5.66	5.16	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

C - Unspiked sample >5 times the amount spiked

B - Analyte detected in the associated Method Blank

J1 - MS or MSD outside acceptance limits. LCS acceptable.

R - RPD outside accepted recovery limits

J - This concentration is considered an estimate due to LCS failure.

Date: *07-Sep-06*

Southwest Analytical, Inc.

Date: *07-Sep-06*

CLIENT: National Security Technologies, LLC
Lab Order: L0608227
Project: V2739
Lab ID: L0608227-002

Client Sample ID: 065101-R1
Collection Date: 8/23/2006 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY VIA, TCLP LEACHED		**SW1311/7470**				Analyst: **LBG-I**
Mercury	ND	0.50		µg/L	1	9/7/2006 2:28:00 PM

Southwest Analytical, Inc.

Date: *07-Sep-06*

CLIENT: National Security Technologies, LLC
Lab Order: L0608227
Project: V2739
Lab ID: L0608227-001

Client Sample ID: 065101-WC1
Collection Date: 8/23/2006 11:30:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY VIA, TCLP LEACHED		**SW1311/7470**				**Analyst: LBG-L**
Mercury	ND	0.50		µg/L	1	9/7/2006 2:28:00 PM

Southwest Analytical, Inc.

Date: *07-Sep-06*

CLIENT: National Security Technologies, LLC
Project: V2739
Lab Order: L0608227

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
L0608227-001A	065101-WC1		8/23/2006 11:30:00 AM	8/30/2006
L0608227-002A	065101-R1		8/23/2006 11:40:00 AM	8/30/2006

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APPENDIX C

WASTE DISPOSITION DOCUMENTATION

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(8)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP : CAU 516 BLDG - 3645 CAS 03-59-02 DRYWELL WASTE

Waste Category: (check one) ☐ Commercial ☒ Industrial CJS 9/27/06

Waste Type: (check one) ☐ NTS ☐ Putrescible ☒ FFACO-onsite ☐ WAC Exception ☐ Non-Putrescible ☐ Asbestos Containing Material ☐ FFACO-offsite ☐ Historic DOE/NV

Pollution Prevention Category: (check one) ☒ Environmental management ☐ Defense Projects

Pollution Prevention Category: (check one) ☒ Clean-Up CJS 9/27/06 ☒ Routine KAW 10/4/06

Method of Characterization: (check one) ☒ Sampling & Analysis ☐ Process Knowledge ☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper ☒ Rocks / unaltered geologic materials ☐ Empty containers
☐ Asphalt ☐ Metal ☐ Wood ☒ Soil ☐ Rubber (excluding tires) ☐ Demolition debris
☐ Plastic ☐ Wire ☐ Cable ☐ Cloth ☐ Insulation (non-Asbestosform) ☐ Cement & concrete
☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses
☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos ☐ Drained automobiles and military vehicles ☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO) ☐ Drained fuel filters (gas & diesel) ☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO) ☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags ☐ Drained fuel filters (gas & diesel) ☐ Crushed non-terne plated oil filters
☐ Plants ☐ Sludge from sand/oil/water separators ☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB KAW 10/4/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/26/2006

Radiological Survey Release for Waste Disposal
RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material
CJ This container/load meets the criteria for Radcon Manual Table 4.2 release limits.
___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10/3/06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 21330 Signature of Certifier: _____

(5)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 (9) LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP BLDG. 3C-45 ; CAU 516 CAS 03-57-02 DRY WELL MATERIAL

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers			
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those m site. I have verified this through the waste characterization method identified ab prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/12/06

Radiological Survey Release for Waste Disposal

RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 30550 9/14/06 Signature of Certifier _____

BN-0918 (09/00)

Bechtel Nevada — NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 (9) LANDF

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP BLDG 3C-45 ; CAU 516 CAS 03-59-02 DRY WELL MATERIAL

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

		☐ Paper	☒ Rocks / unaltered geologic materials		☐ Empty containers	
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB KCW 10/3/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those m site. I have verified this through the waste characterization method identified ab prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/12/06

Radiological Survey Release for Waste Disposal

RCT Initials

- ____ This container/load meets the criteria for no added man-made radioactive material
- CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.
- ____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-2-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 30680 Signature of Certifier: _____

BN-0918 (09/00)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFI

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: CAU 516 CAS 03-51-02 AREA 3 MANCAMP BLDG 3C-45 DRY WELL MATERIAL

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up (RJS 9/11/06	☒ Routine 10/4/06	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB KEW 10/4/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Manag[illegible] knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those ma[illegible] site. I have verified this through the waste characterization method identified abc[illegible] prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/7/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CAL This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 34200 Signature of Certifier: _____

BN-0918 (09/00)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LAND

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP - CAU 516, CAS 03-57-02 BLDG 3C-45 SEPTIC SYSTEM

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☒ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up MS 9/5/06	☒ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers	☐ Asphalt	☐ Metal	☐ Wood	☒ Soil
☐ Rubber (excluding tires)	☒ Demolition debris	☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)
☒ Cement & concrete						

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that are allowed for disposal at this site. I have verified this through the waste characterization method identified above and a review of the above-mentioned prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 8/31/06

If applicable, place BN-0646, "Radiological Release Sticker" here. Onsite use only.

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 21,000 8/31/06 Signature of Certifier: _____

BN-0918 (09/00)

#2

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 6 WELL 3 YARD BLDG 660 SEPTIC SYSTEM PIPING & CLEAN OUT; CAU 516 06-51-03 # 01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers			
☐ Asphalt	☒ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

nitials: SB *(If initialed, no radiological clearance is necessary.)*

he above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my nowledge, does not contain radiological materials.

o the best of my knowledge, the waste described above contains only those materials that are allowed for disposal at this te. I have verified this through the waste characterization method identified above and a review of the above-mentioned ohibited and allowable waste items.

If applicable, place BN-0646, "Radiological Release Sticker" here. Onsite use only.

int Name: SHAUGHN BURNISON

ignature: _____ Date: 10-4-06

te: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

/O USE ONLY

ad Weight (net from scale or estimate) 2000

(4)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 (9) LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP BLDG <3C-36 3C-45> CAU 516 <CAS 03-57-01 – DISTRIBUTION BOX CAS 03-59-02 – DRY WELLS

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☐ NTS ☐ Putrescible ☒ FFACO-onsite ☐ WAC Exception ☐ Non-Putrescible ☐ Asbestos Containing Material ☐ FFACO-offsite ☐ Historic DOE/NV

Pollution Prevention Category: (check one) ☒ Environmental management ☐ Defense Projects

Pollution Prevention Category: (check one) ☒ Clean-Up QS 9/27/06 ☒ Routine CW 10/2/06

Method of Characterization: (check one) ☒ Sampling & Analysis ☐ Process Knowledge ☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper ☒ Rocks / unaltered geologic materials ☐ Empty containers
☐ Asphalt ☐ Metal ☐ Wood ☒ Soil ☐ Rubber (excluding tires) ☐ Demolition debris
☐ Plastic ☐ Wire ☐ Cable ☐ Cloth ☐ Insulation (non-Asbestosform) ☒ Cement & concrete
☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses
☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos ☐ Drained automobiles and military vehicles ☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO) ☐ Drained fuel filters (gas & diesel) ☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO) ☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags ☐ Drained fuel filters (gas & diesel) ☐ Crushed non-terne plated oil filters
☐ Plants ☐ Sludge from sand/oil/water separators ☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/26/06

Radiological Survey Release for Waste Disposal
RCT Initials
____ This container/load meets the criteria for no added man-made radioactive material
CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.
____ This container/load is exempt from survey due to process knowledge and origin.
SIGNATURE: _____ **DATE:** 10.3.06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 39500 Signature of Certifier: _____

BN-0646 (10/05)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP, CAU 516, CAS 03-59-02, BLDG 3C-45 SEPTIC WASTE

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☒ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants	Ld DRIED, SOLIDIFIED	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those ma site. I have verified this through the waste characterization method identified abc prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/11/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 24,000 Signature of Certifier: _____

Bechtel Nevada NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 9328

Location / Origin: CAU 516 : AREA 3 MANCAMP BLDG 3C-45 SEPTIC WASTE (HC IMPACTED) CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

		☐ Paper	☒ Rocks / unaltered geologic materials		☐ Empty containers	
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB 10/2/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/27/06

Radiological Survey Release for Waste Disposal

RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10/3/06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20000 Signature of Certifier: _____

(3)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Shaughn Burnison Phone Number: 5-9328

Location / Origin: Area 3 Camp CAU-516 Impacted Septic Waste

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers			
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: Shaughn Burnison

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20 000 Signature of Certifier: _____

(4)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 3C-45 SEPTIC SYSTEM WASTE (HC IMPACTED) CAU516: CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☐ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB Rec'd 10/2/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9-28-06

Radiological Survey Release for Waste Disposal

RCT Initials

____ **This container/load meets the criteria for no added man-made radioactive material**

CW **This container/load meets the criteria for Radcon Manual Table 4-2 release limits.**

____ **This container/load is exempt from survey due to process knowledge and origin.**

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate) 11,500 Signature of Certifier: _____

(5)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Flood Phone Number: 5-6653

Location / Origin: A3 Camp BH 3C-45 Septic System (THC Impacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☑ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☐ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above-mentioned waste was generated outside of a Controlled Waste Manage knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Mike Flood

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal
RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0546 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20,500 Signature of Certifier: _____

(6)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Flosdo Phone Number: 5-6613

Location / Origin: A-3 CAMP Bldg 3C-45 SEPTIC System (TPH Impacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: MSF 10/2/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mate site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Mike Flosdo

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4-1 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20 000 Signature of Certifier: _____

(7)

Bechtel Nevada — NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: M. L. Floyd Phone Number: 5-6653

Location / Origin: A3 CAMP B-3c-45 Septic System (HC 5m/s) CAU 516 CAS 035902

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Empty containers	☐ Demolition debris
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants 10/2/06		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mate site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: M. L. Floyd

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal
RCT Initials

- ____ This container/load meets the criteria for no added man-made radioactive material
- CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.
- ____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-2-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 18,780 Signature of Certifier: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: M. L. Floyd Phone Number: _____

Location / Origin: A-3 Camp B.3c-45 Septic Sys. (HC Empacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☐ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: M. L. Floyd

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 14,000 Signature of Certifier: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike FLOYD Phone Number: 5-6683

Location / Origin: A-3CAU B-3c-45 Septic System (Not Impacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☑ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☑ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☑ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☑ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☑ Soil	☐ Rubber (excluding tires)	☐ Empty containers	
☑ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Demolition debris	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those ma site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

10/2/06 FEW

Print Name: Mike FLOYD

Signature: _____ Date: 9/29/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ **This container/load meets the criteria for no added man-made radioactive material**

(W) **This container/load meets the criteria for Radcon Manual Table 4.2 release limits.**

____ **This container/load is exempt from survey due to process knowledge and origin.**

SIGNATURE: _____ **DATE:** 10-3-06

BN-0546 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 15,000 Signature of Certifier: _____

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Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Floyd Phone Number: 5665

Location / Origin: A3 camp B 3c-45 Septic System (RE Impacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Empty containers	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Demolition debris	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Manage... knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat... site. I have verified this through the waste characterization method identified abo... prohibited and allowable waste items.

9/28/06

Print Name: Mike Floyd

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 19920 Signature of Certifier: _____

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Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Floyd Phone Number: 56653

Location / Origin: A3 Camp 3c-45 (HC Impacted) CAU 516 CAS 03-59-02

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Empty containers	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Demolition debris	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat(site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: Mike Floyd

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ **This container/load meets the criteria for no added man-made radioactive material**

CW **This container/load meets the criteria for Radcon Manual Table 4.2 release limits.**

____ **This container/load is exempt from survey due to process knowledge and origin.**

SIGNATURE _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 14000 Signature of Certifier: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Mike Floyd Phone Number: ______

Location / Origin: A 3 Camp B-3c-45 Septic Sys (HC Impacted) CAU 572 CAS 03-17-02

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☐ NTS ☐ Putrescible ☒ FFACO-onsite ☐ WAC Exception ☐ Non-Putrescible ☐ Asbestos Containing Material ☐ FFACO-offsite ☐ Historic DOE/NV

Pollution Prevention Category: (check one) ☒ Environmental management ☐ Defense Projects

Pollution Prevention Category: (check one) ☒ Clean-Up ☐ Routine

Method of Characterization: (check one) ☒ Sampling & Analysis ☐ Process Knowledge ☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill: ☐ Paper ☐ Rocks / unaltered geologic materials ☐ Empty containers

☐ Asphalt ☐ Metal ☐ Wood ☒ Soil ☐ Rubber (excluding tires) ☐ Demolition debris

☒ Plastic ☐ Wire ☐ Cable ☐ Cloth ☐ Insulation (non-Asbestosform) ☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: ______

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos ☐ Drained automobiles and military vehicles ☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO) ☐ Drained fuel filters (gas & diesel) ☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO) ☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags ☐ Drained fuel filters (gas & diesel) ☐ Crushed non-terne plated oil filters

☐ Plants ☐ Sludge from sand/oil/water separators ☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: ______ *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials ... site. I have verified this through the waste characterization method identified above ... prohibited and allowable waste items.

KEW 10/2/06

Print Name: Mike Floyd

Signature: ______ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE ______ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 8,000 Signature of Certifier: ______

(1)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 BLDG. 3C-36 SEPTIC WASTE : CAU 516 CAS 03-59-01

Waste Category: (check one) ☐ Commercial ☒ Industrial

Waste Type: (check one) ☐ NTS ☐ Putrescible ☒ FFACO-onsite ☐ WAC Exception ☐ Non-Putrescible ☐ Asbestos Containing Material ☐ FFACO-offsite ☐ Historic DOE/NV

Pollution Prevention Category: (check one) ☒ Environmental management ☐ Defense Projects

Pollution Prevention Category: (check one) ☒ Clean-Up ☐ Routine

Method of Characterization: (check one) ☒ Sampling & Analysis ☐ Process Knowledge ☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill: ☐ Paper ☒ Rocks / unaltered geologic materials ☐ Empty containers

☐ Asphalt ☐ Metal ☐ Wood ☒ Soil ☐ Rubber (excluding tires) ☐ Demolition debris

☐ Plastic ☐ Wire ☐ Cable ☐ Cloth ☐ Insulation (non-Asbestosform) ☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: ______

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos ☐ Drained automobiles and military vehicles ☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO) ☐ Drained fuel filters (gas & diesel) ☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO) ☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags ☐ Drained fuel filters (gas & diesel) ☐ Crushed non-terne plated oil filters

☐ Plants ☐ Sludge from sand/oil/water separators ☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that are allowed for disposal at this site. I have verified this through the waste characterization method identified above and a review of the above-mentioned prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

If applicable, place BN-0646, "Radiological Release Sticker" here. Onsite use only.

Signature: ______ Date: 10/3/06

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): [illegible]

(4)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 30-36 SEPTIC WASTE / CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers			
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those m site. I have verified this through the waste characterization method identified at prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 10/2/06

Radiological Survey Release for Waste Disposal

RCT Initials

CW — **This container/load meets the criteria for no added man-made radioactive material**

— **This container/load meets the criteria for Radcon Manual Table 4.2 release limits.**

— **This container/load is exempt from survey due to process knowledge and origin.**

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate) 2 DAMP

2

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 3C-36 SEPTIC SYSTEM WASTE: CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	☐ Paper
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete	☐ Rocks / unaltered geologic materials

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.) ☐ Empty containers

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Manag[illegible] Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those ma[illegible] site. I have verified this through the waste characterization method identified abo[illegible] prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 10/2/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4-2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 18500 Signature of Certifier: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 3C-36 SEPTIC WASTE; CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and, to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those m site. I have verified this through the waste characterization method identified ab prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 10/2/06

Radiological Survey Release for Waste Disposal

RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 15000 Signature of Certifier: _____

(1)

Bechtel Nevada — **NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 3C-36 SEPTIC WASTE ; CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers	☐ Asphalt	☐ Metal	☐ Wood	☒ Soil
☐ Rubber (excluding tires)	☐ Demolition debris	☐ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)
☐ Cement & concrete						

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mi site. I have verified this through the waste characterization method identified ab prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 10/2/06

Radiological Survey Release for Waste Disposal

RCT Initials

___ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

___ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE _____ DATE: 10-2-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20,000 Signature: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP BDG 3C- CAU 516 CAS 03-59-01 HC IMPACTED SEPTIC WASTE

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☐ Rocks / unaltered geologic materials	☐ Empty containers				
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete	

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB RKEW 10/2/06 *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/27/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

RW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 26000 9/28/06 Signature of Certifier: _____

BN-0918 (09/00)

(2)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 CAMP BLDG 3C-36 SEPTIC SYSTEM HC IMPACTED WASTE : CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill: ☐ Paper ☒ Rocks / unaltered geologic materials ☐ Empty containers

☐ Asphalt ☒ Metal ☐ Wood ☒ Soil ☐ Rubber (excluding tires) ☐ Demolition debris

☒ Plastic ☐ Wire ☐ Cable ☐ Cloth ☐ Insulation (non-Asbestosform) ☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos ☐ Drained automobiles and military vehicles ☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO) ☐ Drained fuel filters (gas & diesel) ☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO) ☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags ☐ Drained fuel filters (gas & diesel) ☐ Crushed non-terne plated oil filters

☐ Plants KEW 9/28/06 ☐ Sludge from sand/oil/water separators ☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/28/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 21000 Signature of Certifier: _____

CALL 4870 7024 ON DELIVERY

(1)

Bechtel Nevada — NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 (6) 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 ~~CAMP~~ BLDG 3C-36 HC IMPACTED SEPTIC WASTE ; CAU 516 CAS 03-59-01

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers	☐ Asphalt	☒ Metal	☐ Wood
☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris	☒ Plastic	☐ Wire	☐ Cable
☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete			

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground Tanks
☐ Hydrocarbons (contact SWO)		

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/27/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-5-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 21 600 9/28/06 Signature of Certifier: _____

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANCAMP BLDG 3C-36 CAU 516 CAS 03-59-01 SEPTIC WASTE

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers	☐ Asphalt	☐ Metal	☐ Wood	☒ Soil
☐ Rubber (excluding tires)	☐ Demolition debris	☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)
☒ Cement & concrete						

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☒ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants (DRIED SOLIDIFIED)		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abo prohibited and allowable waste items.

KEW 10/2/06

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/11/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ **DATE:** 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 10,000 Signature of Certifier: _____

BN-0018 (09/00)

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: SHAUGHN BURNISON Phone Number: 5-9328

Location / Origin: AREA 3 MANSCAMP, CAU 516, CAS 03-59-01, BLDG 3C-36 SEPTIC WASTE

Waste Category: (check one)		☐ Commercial	☒ Industrial	
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/NV
Pollution Prevention Category: (check one)		☒ Environmental management	☐ Defense Projects	
Pollution Prevention Category: (check one)		☒ Clean-Up	☐ Routine	
Method of Characterization: (check one)		☒ Sampling & Analysis	☐ Process Knowledge	☐ Contents

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels-, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses-, Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper	☒ Rocks / unaltered geologic materials	☐ Empty containers			
☐ Asphalt	☐ Metal	☐ Wood	☒ Soil	☐ Rubber (excluding tires)	☐ Demolition debris
☒ Plastic	☐ Wire	☐ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☒ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Deconned Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☒ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-terne plated oil filters
☐ Plants → SOLIDIFIED & DRIED		☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: SB *(If initialed, no radiological clearance is necessary.)*

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those mat site. I have verified this through the waste characterization method identified abov prohibited and allowable waste items.

Print Name: SHAUGHN BURNISON

Signature: _____ Date: 9/11/06

Radiological Survey Release for Waste Disposal

RCT Initials

____ This container/load meets the criteria for no added man-made radioactive material

CW This container/load meets the criteria for Radcon Manual Table 4.2 release limits.

____ This container/load is exempt from survey due to process knowledge and origin.

SIGNATURE: _____ DATE: 10-3-06

BN-0646 (10/05)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 12 500 Signature of Certifier: _____

BN-0646 (10/05)

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APPENDIX D

FIELD PHOTOGRAPHS

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PHOTOGRAPHIC LOG

IMAGE NUMBER	DATE	CORRECTIVE ACTION SITE	DESCRIPTION
1	02/08/2006	CAS 03-59-01	Septic tank location prior to corrective action
2	09/28/2006	CAS 03-59-01	Septic tank location during corrective action
3	12/14/2006	CAS 03-59-01	Septic tank location after corrective action
4	02/08/2006	CAS 03-59-02	Septic tank location prior to corrective action
5	09/28/2006	CAS 03-59-02	Septic tank location during corrective action
6	12/14/2006	CAS 03-59-02	Septic tank location after corrective action
7	02/08/2006	CAS 06-51-01	Pipe segment location prior to corrective action
8	09/28/2006	CAS 06-51-01	Pipe segment location during corrective action
9	12/14/2006	CAS 06-51-01	Pipe segment location after corrective action
10	02/08/2006	CAS 06-51-03	Clean out box location prior to corrective action
11	12/14/2006	CAS 06-51-03	Clean out box location during corrective action
12	12/14/2006	CAS 06-51-03	Clean out box location after corrective action

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Photograph 1: CAS 03-59-01, Septic tank location prior to corrective action (02/08/2006)

Photograph 2: CAS 03-59-01, Septic tank location during corrective action (09/28/2006)

Photograph 3: CAS 03-59-01, Septic tank location after corrective action (12/14/2006)

Photograph 4: CAS 03-59-02, Septic tank location prior to corrective action (02/08/2006)

Photograph 5: CAS 03-59-02, Septic tank location during corrective action (09/28/2006)

Photograph 6: CAS 03-59-02, Septic tank location after corrective action (12/14/2006)

Photograph 7: CAS 06-51-01, Pipe segment location prior to corrective action (02/08/2006)

Photograph 8: CAS 06-51-01, Pipe segment location during corrective action (09/28/2006)

Photograph 9: CAS 06-51-01, Pipe segment location after corrective action (12/14/2006)

Photograph 10: CAS 06-51-03, Clean Out box location prior to corrective action (02/08/2006)

Photograph 11: CAS 06-51-03, Clean Out box location during corrective action (12/14/2006)

Photograph 12: CAS 06-51-03, Clean Out box location after corrective action (12/14/2006)

APPENDIX E

NATIONAL ENVIRONMENTAL POLICY ACT ENVIRONMENTAL EVALUATION CHECKLIST

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NV-2006-035

NV-16
(Rev. 11/2003)

Other Editions Obsolete

U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION NEVADA SITE OFFICE
NEPA ENVIRONMENTAL EVALUATION CHECKLIST

FOLLOW ATTACHED PROCEDURES FOR COMPLETING CHECKLIST	Date
A. Project/Activity Title (Attach a brief description of proposed project) **CAU 516: CLOSURE/CLEANUP ACTIVITIES**	**02/15/2006** Anticipated Start Date **06/28/2006**
Project Location **NTS - Areas 3 and 6**	Proposed By (if other than NNSA/NSO)
NNSA/NSO Line Management Organization	NNSA/NSO Project/Program Manager **Janet Appenzeller-Wing**

ENVIRONMENTAL CONSIDERATIONS: If any phase of the project/activity involves any of the following considerations, check yes and explain in project description. See NV-16A for consideration guidelines and examples.

CONSIDERATION	YES	NO	UNK	CONSIDERATION	YES	NO	UNK
WASTE				**AIR EMISSIONS**			
1 Non-Rad Solid Waste	X			1 Biological Material/Chemical Release		X	
2 Hazardous Waste	X			2 Dust/Particulate Matter	X		
3 Low-level Rad Waste	X			3 Explosives		X	
4 Mixed Waste			X	4 Diesel Generators		X	
5 TRU/Mixed TRU Waste		X		5 Open Burning		X	
6 Wastewater (domestic/industrial)	X						
				SITE LOCATION/OTHER			
HAZARDOUS MATERIALS				1 Environmental Restoration Site (CAU)	X		
1 Petroleum/Fuel (storage/use)	X			2 Excavation/Land Surface Disturbance	X		
2 Underground Storage Tanks		X		3 Off road travel		X	
3 Aboveground Storage Tanks		X		4 Biological/Tortoise Resource Area		X	
4 PCBs/Asbestos		X		5 Cultural/Historic Resource Area		X	
5 Pesticides/Herbicides		X		6 Change in Existing Drainage Pattern		X	
6 Radioactive Materials	X			7 Impact to Environmental Monitoring System		X	
7 Biological Materials/Simulants		X		8 Unexploded Ordnance Area			X
8 Beryllium		X		9 Noise	X		
9 Chemical storage/use		X		10 Radiation controlled area		X	
10 Use of explosives/firearms		X		11 Drinking water system involvement		X	

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B. Is the project/activity included in the final NTS EIS and the ROD or other NEPA document?
Yes X (complete Sections C, D, and E) No ____ (complete Sections D, E, and F)

C. This project/activity is included in the NTS EIS/ROD (or other NEPA document) under the following section and page no.:
NTS/EIS Volume 1, Appendix A, A.3.1.3 – Environmental Restoration Program – Industrial Sites Project

D. Does the proposed project/activity require any local, state, or federal permits or notifications? Yes X No ____

E. If, based on the project description and the preliminary environmental considerations noted above, the proposed action fits within a class of action listed in Subpart D of 10 CFR 1021, write in the space below, the paragraph number and short title from the appropriate table of contents of Subpart D, Appendix B, C, or D, for a CX, EA, or EIS. If the proposed action does not fit within any class of action, write "Not Listed" below.

F. **NEPA COMPLIANCE OFFICER DETERMINATION OR RECOMMENDATION:**
I have determined that the proposed activity as described in item A above, has been adequately addressed in the document cited in item C for the purpose of NEPA. No further analysis or documentation is required pursuant to NEPA.

NNSA/NSO NEPA Compliance Officer — 3/23/06 Date

CAU 516: CLOSURE/CLEANUP ACTIVITIES

Project Description

Corrective Action Unit (CAU) 516 consists of six Corrective Action Sites (CASs). Closure activities will be conducted at four of the CASs. Activities will include solidifying septic tank contents and removing septic tanks, associated components, and piping. Each CAS is briefly described below.

CAS 03-59-01 - Building 3C-36 Septic System

This site is located in the former Area 3 Camp south of Road 3-01. The site includes a 3,000-gallon concrete septic tank containing approximately 1,430 gallons of liquid and solid waste, a distribution box, a leachfield, and associated piping. TPH is present in the septic tank at concentrations up to 7,800 milligrams/kilogram.

The liquid contents of the septic tank will be solidified. The septic tank and its contents will be removed and disposed as hydrocarbon waste. The distribution box and a 10-foot section of associated piping will be removed and disposed as construction debris. The ends of any remaining piping will be sealed. The excavations will be backfilled. This CAS is not in a posted area.

CAS 03-59-02, Building 3C-45 Septic System

This site is located in Area 3 north of Road 3-01 and west of Angle Road. The site includes a 1,200-gallon concrete septic tank containing approximately 714 gallons of liquid and solid waste, a distribution box, a leachfield, two dry wells, and associated piping. TPH at concentrations of up to 28,000 milligrams/kilogram, VOCs at concentrations above the TCLP regulatory levels for hazardous waste, and elevated levels of gross alpha and beta radiation are present in the septic tank.

The liquid and solid contents of the septic tank will be sampled for hazardous and radioactive constituents for waste handling determination. The septic tank and its contents will be removed and properly disposed depending on waste characterization sample results. If the contents are determined to be hazardous or mixed waste, they will be removed from the tank and disposed. If the contents are below regulatory limits for hazardous waste, they will be solidified either in a solidification basin or in the septic tank. The distribution box will be removed and disposed as construction debris, and the ends of any remaining piping will be sealed. The dry well north of the leachfield will be excavated to 12 feet below ground surface, and the dry well east of the building foundation will be excavated to 10 feet below ground surface. Material removed from the dry well will be disposed as sanitary waste. The excavations will be backfilled. This CAS is not in a posted area.

CAS 06-51-01, Sump and Piping

This site is located in the Area 6 Well 3 Yard. The site includes a sump and associated piping running to a collection box. TPH is present in the pipe running between the collection box and the sump at concentrations up to 220 milligrams/kilogram.

Approximately 82 feet of piping and the sump will be removed and disposed as hydrocarbon waste. The ends of any remaining piping will be sealed. The excavation will be backfilled. This CAS is not in a posted area.

CAS 06-51-03, Clean-Out Box and Piping

This site is located in the Area 6 Well 3 Yard. The site includes a clean-out box and piping. TPH is present in the soil in the clean-out box at concentrations up to 180 milligrams/kilogram.

The clean-out box, approximately 0.5 cubic yards of soil from the clean-out box, and approximately 25 feet of piping will be removed and disposed as hydrocarbon waste. The ends of any remaining piping will be sealed. The excavation will be backfilled. This CAS is not in a posted area.

Environmental Considerations

Waste

1. **Non-Rad Solid Waste:** Non-Rad Solid Waste (e.g., non-impacted personal protective equipment and general trash) and construction debris (e.g., non-impacted septic system components) removed from sites will be screened for free release and disposed in an onsite landfill. Hydrocarbon waste will be transported to the Area 6 Hydrocarbon Landfill for disposal.

2. **Hazardous Waste:** Hazardous Waste may be generated at CAS 03-59-02 in the form of VOC-contaminated septic tank contents. The hazardous waste will be managed and disposed according to all applicable BN procedures and state and federal regulations. Upon generation, the waste shall be containerized and stored in a satellite accumulation area or a 90-Day Hazardous Waste Accumulation Area depending on the amount of waste generated. After an approved waste profile is generated, the waste will be shipped to an appropriate offsite facility.

3. **Low-Level Rad Waste:** Low-Level Rad Waste may be generated at CAS 03-59-02. Characterization samples indicated that the septic tank contents contain gross alpha and gross beta radioactive contamination. If waste characterization results indicate that the septic system contents at this site should be handled as low-level rad waste, the waste will be disposed according to all applicable BN procedures and state and federal regulations.

4. **Mixed Waste:** Mixed Waste may be generated at CAS 03-59-02. Characterization samples indicated that the septic tank contents contain levels of VOCs and alpha and beta contamination that are above landfill limits. If waste characterization results indicate that the septic system contents at this site should be handled as mixed waste, the waste will be disposed according to all applicable BN procedures and state and federal regulations.

6. **Wastewater:** Heavy equipment will be decontaminated, as necessary, prior to release from the site. A decontamination pad will be constructed by lining a bermed area large enough to hold the equipment. The equipment will be cleaned on the pad using a pressure washer/steam cleaner or rinsed. Rinsate will be mixed with clean fill and solidified or allowed to evaporate. All rinsate, after solidification, will be characterized by sampling, and properly disposed. The liner will be disposed in the appropriate disposal facility.

Hazardous Materials

1. **Petroleum/Fuel (storage/use):** Heavy equipment onsite will use petroleum fuel. No fuel will be stored onsite outside of the equipment. Absorbent pads will be used if equipment appears to be leaking petroleum.

6. **Radioactive Materials:** Characterization samples at CAS 03-59-02 indicated elevated levels of alpha and beta radiation present in septic tank contents. The soil will be managed as mixed waste until a waste profile is generated.

Air Emissions

2. **Dust/Particulate Matter:** Dust/Particulate Matter will be controlled during soil excavation by the use of water sprays.

Site Location/Other

1. **Environmental Restoration Site:** These sites are included in the Federal Facility Agreement and Consent Order between the Department of Energy and the state of Nevada as part of CAU 516.

2. **Excavation/Land Surface Disturbance:** Excavation will occur at the four CASs to remove septic systems. A utility survey and blind penetration/excavation permit will be completed prior to excavation. All excavations will be backfilled with clean fill from an approved borrow source and contoured to the surrounding grade.

8. **Unexploded Ordnance Area:** UXO may be encountered at the sites in CAU 516. If UXO is encountered, the appropriate notifications will be made, and all BN procedures will be followed.

9. **Noise:** Elevated noise levels may result from the operation of backhoe and/or loader equipment. Personnel not directly involved with operation of this equipment will be kept back at least 15 feet while equipment is in use. The equipment operator will follow the instructions as directed in the Site Specific Health and Safety Plan.

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