



Five-Year Review Report

**Third Five-Year Review Report
For
Smuggler Mountain Superfund Site
Pitkin County, Colorado**

June 2007

Prepared By:

**REGION VIII
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
DENVER, COLORADO**

Approved by:

Date

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6/14/2007

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List of Acronyms

AOC	Administrative Order on Consent
ARARS	Applicable or Relevant and Appropriate Requirements
CD	Consent Decree
CDPHE	Colorado Department of Public Health & Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EE/CA	Engineering Evaluation/Cost Analysis
ESD	Explanation of Significant Differences
GAC	Granular Activated Carbon
GPM	Gallons per Minute
HASP	Health and Safety Plan
IC	Institutional Control
IGA	Intergovernmental Agreement
MCLs	Maximum Contaminant Levels
MSL	Mean Sea Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OUs	Operable Units
PRP	Potentially Responsible Party
RALs	Risk Action Levels
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SSC	Superfund State Contract
UC	University of Cincinnati

Executive Summary

EPA Region 8 has conducted the third five-year review of the remedial actions implemented at the Smuggler Mountain Superfund Site (Site) located in Pitkin County, Colorado. The review was conducted from January through June 2007. The results of the five-year review indicate that the remedy is protective of human health and the environment. Institutional controls (ICs) for OU1, related to excavation of contaminated soils, are in full force and effect and in accordance with the OU1 Consent Decree. OU2, the mining area, is being properly maintained in accordance with the OU2 AOC. A couple of issues that did not immediately impact the protectiveness of the remedy were identified and have already been addressed.

During the inspection on April 18, 2007, it was found that a continued and agreeable protocol was needed for visual inspection of the OU1 residential area for ordinance (i.e. IC) compliance. On the day of the inspection, Pitkin County agreed to inspect the OU1 residential area for ordinance compliance twice a year: at the beginning (April) and end (October) of the construction season. The letter of agreement was received by EPA on April 23, 2007.

Also, during the inspection, it was found that a reoccurring protocol was needed to remind residents in OU1 of the procedures required under the ordinances passed by the City of Aspen and Pitkin County related to ICs. On the day of the inspection, Pitkin County agreed to send notices, detailing ordinance requirements, to residents every five years (in conjunction with five-year reviews). The letter of agreement was received on April 23, 2007. A copy of the notice was received by EPA on April 30, 2007. The notices were sent to all residents within OU1 by the end of April of this year.

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Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Smuggler Mountain Superfund Site		
EPA ID (from WasteLAN): COD980806277		
Region: 8	State: CO	City/County: Aspen/Pitkin County
SITE STATUS		
NPL status: <input type="checkbox"/> Final <input checked="" type="checkbox"/> Deleted <input type="checkbox"/> Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple OUs? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Construction completion date: September 26, 1996	
Has site been put into reuse? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
REVIEW STATUS		
Reviewing agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: Armando Saenz		
Author title: Remedial Project Manager	Author affiliation: EPA Region 8	
Review period: January 2007 to June 2007		
Date(s) of site inspection: 4/18/2007		
Type of review: <input checked="" type="checkbox"/> Statutory <input type="checkbox"/> Policy (<input type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-Sara <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion)		
Review number: <input type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input checked="" type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action: <input type="checkbox"/> Actual RA Onsite Construction at OU # ____ <input type="checkbox"/> Actual RA Start at OU# ____ <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five-Year Review Report <input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 9/25/02		
Due date (five years after triggering action date): 9/25/07		

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Five-Year Review Summary Form

Issues:

- 1) During the inspection on April 18, 2007, it was found that a continued and agreeable protocol was needed for visual inspection of the OU1 residential area for ordinance compliance.
- 2) During the inspection, it was found that a reoccurring protocol was needed to remind residents in OU1 of the procedures required under the ordinances passed by the City of Aspen and Pitkin County related to ICs.

Corresponding Recommendations and Follow-up Actions:

- 1) On the day of the inspection, Pitkin County agreed to inspect the OU1 residential area for ordinance compliance twice a year: at the beginning (April) and end (October) of the construction season. The letter of agreement was received by EPA on April 23, 2007.
- 2) On the day of the inspection, Pitkin County agreed to send notices, detailing ordinance requirements, to residents every five years (in conjunction with five-year reviews). The letter of agreement was received on April 23, 2007. A copy of the notice was received by EPA on April 30, 2007. The notices were sent to all residents within OU1 by the end of April of this year.

Protectiveness Statement(s):

The remedy at the Smuggler Mountain Superfund Site is protective of human health and the environment. Institutional controls for OU1, related to excavation of contaminated soils, are in full force and effect and in accordance with the OU1 Consent Decree. OU2, the mining area, is being properly maintained in accordance with the OU2 AOC and the limited impact permit with the Colorado Mined Land Reclamation Board.

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Smuggler Mountain Superfund Site Third Five-Year Review Report

I. Introduction

EPA Region 8 has conducted a third five-year review of the remedial actions implemented at the Smuggler Mountain Superfund Site located in Pitkin County, Colorado. This review was conducted from January through June 2007. This report documents the results of the review. The purpose of five-year reviews is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify deficiencies found during the review, if any, and identify recommendations to address them.

This review is required by statute. EPA must implement five-year reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121(c), as amended, states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented.

The NCP part 300.430(f)(4)(ii) of the Code of Federal Regulations (CFR) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

This is the third five-year review for the Site. The triggering action for this review is the completion of the second five-year review on September 25, 2002. Due to the fact that hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unrestricted use and unlimited exposure, another five-year review will be required.

II. Background

The Site is located in northeastern Aspen, Pitkin County, Colorado. It is in the Roaring Fork River valley, on the southwestern flank of Smuggler Mountain. The Site is largely developed containing large and small condominiums, mobile home parks, a tennis club and numerous

single family residences. It was placed on the National Priorities List (NPL) on June 10, 1986.

Soil analyses in the early 1980's, conducted first by residents and later by EPA and the Potentially Responsible Parties (PRPs), identified concentrations of lead as high as 46,000 parts per million (ppm), well above EPA's cleanup level at the time of 1,000 ppm. Elevated levels of cadmium were also found in the soils of the site. The sources of the lead and cadmium are the waste rock and tailings (mine wastes) from the mines on Smuggler Mountain. These wastes are exposed, covered or mixed with native soils across the site.

The Site has been divided into two Operable Units (OUs) - OU1 and OU2. OU1 addresses the Site and does not include the reclamation of the actual Smuggler Mine portion of the Site. It covers approximately 300 acres and lies on the northeastern edge of the town of Aspen. OU2 addresses the mine reclamation work and surface or ground water response actions. OU2 covers approximately 25 acres and lies on the upward slope of Smuggler Mountain, just northeast of OU1. Please see Figure 1.

Three mine waste dumps, containing an estimated 22,000 cubic yards of mine wastes, are located on the mine site. Future mining activities at OU2 are expected to produce as much as 2,100 cubic yards of additional waste rock per year. These wastes will be placed on the existing dumps. The mine site dumps can accommodate the projected quantities of waste for the projected life of the mine without significantly changing the character of the dumps.

III. Remedial Actions & Implementation

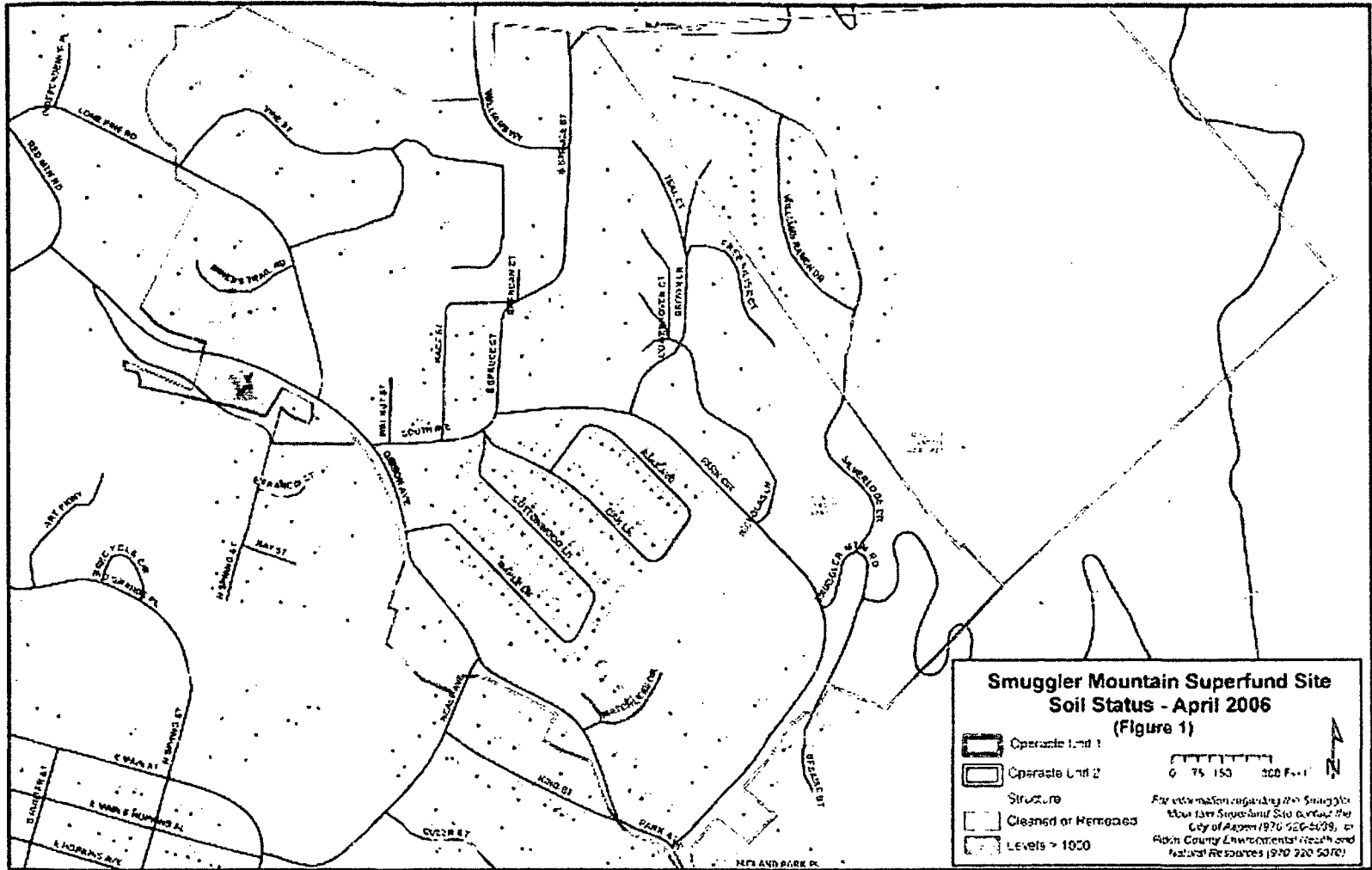
Early Actions Performed

A number of investigations have been undertaken at the site. An EPA Field Investigation Team sampled the site in 1983. This study was the result of a request by Pitkin County to characterize any threats posed by abandoned mine tailings in the northeast quarter of Aspen.

Another study in 1985 was sponsored by Western Slope Development Company on behalf of the Hunter Creek Condominiums, and a plan for surface covering and revegetation was developed for the areas surrounding the development. Similar studies were conducted by other condominium developments in the area. In July 1985, discussions were held between a number of PRPs and EPA resulting in a Remedial Investigation/Feasibility Study (RI/FS). The RI/FS was conducted by Fred C. Hart Associates, Inc.

Remedial Investigation/Feasibility Study

The RI/FS Report was completed and released in March 1986. Remedial objectives, used to analyze potential remedial alternatives, called for an isolation of the source of the contamination (lead in mine wastes) to prevent distribution and inhalation of windblown dusts and dermal contact with soil.



The recommended remedial action from the selection of two alternatives was surface sealing (capping) and grading. An RI/FS Addendum for OU2 was issued on May 7, 1986, to characterize the nature and extent of contamination and determine the appropriate extent of remedy at the Smuggler-Durant Mine Site.

The contaminants of concern at the Site are primarily lead and cadmium in soils. Lead and cadmium are hazardous substances within the meaning of CERCLA section 101(14), 42 U.S.C. § 9604(14). Potential and/or actual routes of exposure are direct ingestion of contaminated soils and inhalation of wind blown dust.

There are no surface water sources on or flowing through the area. Nor are there any significant gullies entering or leaving the area. Thus, there is little opportunity for exposure to potentially contaminated runoff. Additionally, there are no known threatened or endangered wildlife or plant species inhabiting the Site.

ROD & ESD Findings & Cleanup Activities Performed

In September 1986, a Record of Decision (ROD) was issued that divided the Site into two OUs. The OU1 remedy was modified by several Explanations of Significant Differences (ESDs), the last of which was dated June, 1993. OU1 is mostly residential. The remedy selected in the ROD was solely for OU1, but OU2 was briefly discussed. The mine site (OU2) is not developed for residential use, but does include the Smuggler Mine on Smuggler Mountain. OU2 is an ongoing mining operation and operations are expected to continue for the next 25-30 years and perhaps indefinitely. The remedy selection for OU2 was documented in an Action Memorandum.

Operable Unit 1. The 1986 ROD for OU1 included:

- Source Isolation of High-Level Wastes - Creation of an on-site repository on County-owned property to permanently dispose of the high-level wastes (over 5000 ppm lead) excavated from the Site. The repository would have been under the long term care of Pitkin County. Consolidation of all high lead level wastes from the Site (excluding the mine site) was to be implemented in the repository. The repository would then have been capped with a multi-layer, stable cap satisfying RCRA performance standards for in-place closure (40 CFR Part 264, Subpart N).
- Source Isolation of Low-Level Wastes - Isolation of all low level lead contaminated wastes (defined as areas with soil lead concentrations of between 1000 and 5000 ppm lead) was to be implemented by capping in place with 6-12 inches of clean topsoil and revegetating.
- Increased Ground Water Monitoring – Monitoring of ground water quarterly on-site was proposed for a period of five years to determine efficacy of the caps in enhancing ground water quality.

- Alternate Water Supply - EPA also believed that a permanent, alternate, water supply was necessary. Thus, EPA would have required closing of the ground water wells for 5-7 residences with hook-ups for the residences to the existing public water supply.
- Operation and Maintenance of Low- and High-Level Waste Caps - Long term maintenance and inspection of the repository was also included in the 1986 decision.

During the OU1 Remedial Design (RD), additional technical information showed that the remedy was not implementable due to the unexpectedly high volume of soils. The ROD was modified in the March 1989 ESD. This ESD described a plan to remove the top two feet of soils containing more than 1,000 ppm lead in the residential areas, an additional on-site repository for the extra volume of soil, and institutional controls to ensure the permanence of the remedy. However, the Aspen community found this remedy unacceptable and the plan was put on hold pending further investigation.

The Aspen community submitted an alternative proposal to EPA which resulted in a second ESD issued in May 1990. The May 1990 ESD included a greater reliance on Institutional Controls (ICs) and removal of 6 inches of contaminated soil in the Hunter Creek and Centennial Condominium areas. For individual properties, the protective cover of clean soil, placed over contaminated areas, would be reduced from two feet to a geotextile liner overlain with one foot of clean soil. Pitkin County adopted ICs in May, 1991, but they were repealed based upon citizen concerns about the need for any remedy at all.

EPA issued a Minor Modification to the remedy in October of 1991 that recognized that landowners could implement land use controls rather than local government. The modification provided for implementation of ICs by the adoption and enforcement of local ordinances by Pitkin County or the City of Aspen, by compliance with EPA approved Operation and Maintenance plans by private parties or by the use of EPA's enforcement authority.

Some citizens contended that the cleanup, with heavy equipment and dust, would be more hazardous than living with the health risk at the Site. To address the community's concerns, an independent panel, called a Technical Advisory Committee (TAC), was convened in October of 1992. The TAC included six nationally recognized lead experts and three technical advisors. It released a final report in January 1993. The June 1993 ESD was based on the TAC report..

The June 1993 ESD modified the ROD and previous ESDs. The OU1 actions were to be implemented through a Partial Consent Decree with Pitkin County filed with the United States District Court for the District of Colorado on March 24, 1995, civil action # 89-C-1802. The final OU1 remedy selected and ultimately implemented was:

- The Pitkin County Health Department agreed to a blood lead surveillance program for young children and implemented an indoor dust sampling program over a two year period.
- The berm area was to be capped with clean soil and revegetated. Other common-use

areas of exposed mine waste, including Mollie Gibson Park, were to be covered, revegetated and monitored.

- Vegetable gardens were required to be planted in at least 12 inches of clean soil.
- The Aspen/Pitkin Environmental Health Department was required to evaluate site construction projects or land use changes to determine whether they present a threat of soil exposure to young children.

EPA was also to make a final determination regarding remediation of the residential soils based on EPA's review of completed lead speciation, bioavailability and blood lead monitoring studies.

OU1 - Blood Lead Study. Under the OU1 June 1993 ESD, EPA was to make a final determination regarding remediation of the OU1 residential soils based on EPA's review of completed lead speciation, bioavailability, and blood lead monitoring studies. The results of the soil bioavailability study may be found in the May 1996 preliminary report, "Bioavailability of Lead in Soil Samples from the Smuggler Mountain NPL Site Aspen, Colorado." This study showed that bioavailability of predominantly lead carbonate was near the EPA default of 30% (absolute) which further substantiated the need for a blood lead assessment to help ascertain potential future risks.

In 1996, the Pitkin County Health Department's contractor, the University of Cincinnati (UC), and EPA Region 8 designed a biological and environmental sampling study to identify blood lead levels in children associated with lead levels found in the children's play environment. This biomonitoring study was recommended by the TAC and included in the 1993 ESD. Children between the ages of 1 and 7 years were identified who lived in the more contaminated yards, and venous blood samples were obtained. At the same time the biological samples were obtained, environmental samples were taken (indoor and exterior dust, soil, water, and hand-wipes from the children).

To complete the requirement of identifying all pertinent facts surrounding the demographic element for the study, a survey was created to document all variables that might affect the results found in the blood study. In other words, all major sources and factors that might impact the blood lead levels found in the children were identified.

The schedule of events focused on obtaining the biological and environmental samples in the late summer and early fall of 1996 (and was partially repeated in the early fall of 1997). This was done to optimize the time when the children had been exposed to their outside environment, and to maximize the level of lead they may have been exposed to throughout the summer.

The final report summarizing the results of the blood lead study and incorporating data from previous studies was completed in October 1998. The report, titled "Blood Lead Surveillance and Exposure of Young Children to Elevated Soil Lead at the Smuggler Superfund Site, Aspen, CO - Final Report," was prepared by UC.

Additional analyses of the study were conducted by Gerry Henningsen, EPA Region 8 toxicologist. His findings can be found in a report titled "Further Assessment of Risks from Exposure to Lead in Soils at the Smuggler Superfund Site, Aspen, CO, Using a Weight of Evidence Approach," EPA Region 8, Denver, CO, May 1999 (Gerry Henningsen, Region 8 Toxicologist).

Both reports essentially conclude that children living on the Site are not at unacceptable risk due to exposure to lead in the soil. Although environmental lead levels are slightly elevated, and the EPA IEUBK modeling indicates some potential risk to children who are in contact with this lead, repeated screening of children shows no impact of this exposure on blood lead levels of children at the Site. Consequently, EPA has concluded that further remediation of the OUI soils is not needed to adequately protect human health.

Operable Unit 2. The 1986 ROD discussed mine reclamation and possible ground-water corrective actions for OU2:

- **Addendum to RI/FS:** An addendum to the existing RI/FS was to be prepared to characterize the nature and extent of contamination and determine the appropriate extent of remedy at OU2. The Addendum was completed in May 1996.
- **Possible Ground-Water Corrective Action:** Groundwater quality data did not justify action and ground water conditions were expected to improve after completion of the OUI remedy. The decision of how to address the ground water was ultimately made in the 1993 OUI ESD. The ESD stated that site conditions suggested that the groundwater contamination identified earlier was due to the high natural metals content in the soils, or the result of well materials. It was then concluded that the groundwater contamination was not a health threat and that groundwater remediation was not necessary.
- **Performance of Remedy:** It was anticipated that some remedial actions would be necessary for the mine site, but no decision was made as to the nature of the remedial requirements in the 1986 ROD.

An Engineering Evaluation/Cost Analysis (EE/CA) was conducted for OU2 to determine the necessary remedial actions. The EE/CA was completed on January 25, 1995 and stated the following removal objectives: abate the threat of direct contact with lead contaminated soils and waste rock in mine waste dumps; abate the threat of inhalation of contaminated dust; abate the threat of migration of contamination via air and surface water; and attain applicable or relevant and appropriate requirements (ARARS).

The remedial actions, outlined in an Action Memorandum dated April 19, 1995, were eventually made part of an Administrative Order on Consent with the mine owners in May 1995. The removal action selected in the OU2 Action Memorandum included the following:

- Regrading a part of mine dump #2 to drain back into the mountain.
- Cribbing the unstable, if any, portions of the toe of Dump #2. This eventually turned out

- to be unnecessary.
- Regrading the lower parking area to drain back into the mountain.
- Controlling dust emissions from dirt roads and the parking area by periodic spraying of a magnesium chloride dust suppressant solution.
- Extending the existing fence to restrict entry to the lower portion of the mine site.

All of the work was completed by September 1996 except for the second activity. The toe of dump #2 was not unstable; therefore, cribbing was not necessary.

Separate from the CERCLA work, the mine operators will later perform routine closure actions. Disturbed areas other than mine waste dumps and developed areas will be revegetated. Prior to cessation of mining activities, the fence will be extended around the entire mine area, and the roadway and parking area will be graveled or covered with asphalt.

Operation & Maintenance (O&M)

OU1. The OU1 Operations and Maintenance Plan (O&M Plan) is represented in its entirety by the Institutional Controls (ICs) enacted for OU1 under the Consent Decree. After the signing of the Consent Decree, Pitkin County proposed amendments to the Pitkin County Code to enact ICs (Land Use Restrictions) for the Site. These ICs were reviewed and approved by EPA and enacted by the City of Aspen and Pitkin County to restrict the movement of contaminated soils in and from the Site and to aid in preserving the integrity of the remedy constructed at the Site. The agreed upon ICs are as follows:

- No person shall undertake or conduct any activities or development within the Site involving the excavation or exposure of more than one (1) cubic yard of soil without first obtaining a permit from the Director.
- Excavation and construction - Any disturbed soil or material that is to be stored above ground shall be securely contained on and covered with a durable non-permeable tarp or other protective barrier approved by the Aspen/Pitkin Environmental Health Department so as to prevent the leaching of contaminated material onto or into the surface soil. Disturbed soil or material need not be removed if the Aspen/Pitkin Environmental Health Department finds that: (1) the excavated material contains less than 1,000 parts per million (ppm) of total lead, or (2) that there exists a satisfactory method of disposal at the excavation site. Disturbed soil and solid waste may be disposed of outside of the site upon acceptance of the material at a duly licensed and authorized receiving facility.
- Dust Suppression - All activity or development shall be accompanied by dust suppression measures such as the application of water or other soil surfactant to minimize the creation and release of dust and other particulates into the air. The Aspen/Pitkin Environmental Health Department may require air monitoring to insure the effectiveness of dust suppression measures.
- Vegetable and flower gardening or cultivation - No vegetables or flowers shall be planted

or cultivated within the boundaries of the Site except in garden beds consisting of not less than twelve (12) inches of soil containing no more than 999 parts per million (ppm) lead.

With the OU1 Consent Decree, Pitkin County has indefinitely assured EPA and the State that all necessary ICs will be in full force and effect within the Site boundary. The Consent Decree also includes reopeners in the event that the County repeals or disregards these ordinances.

In November of 2001, an Intergovernmental Agreement (IGA) was formalized between Pitkin County and the City of Aspen. With the split up of the Aspen/Pitkin Environmental Health Department into separate city and county departments earlier in the year, it became necessary to define respective roles and responsibilities. An amendment to the OU1 Consent Decree was not necessary and Pitkin County will remain the sole PRP under the Consent Decree.

Soil tipping fees at the Pitkin County Landfill have risen over the years. The landfill also reinstated soil tipping fees for soils and other excavated material from the Site. As a result of these changes, Pitkin County developed guidelines (with guidance from CDPHE) in June of 2006 to follow during instances when a developer utilizes uncontaminated soil from the Site or other potentially contaminated area as fill in unincorporated Pitkin County. Under the OU1 remedy, uncontaminated soil is defined as soil containing lead concentrations of less than 1000 ppm. The guidelines are summarized in a memo in Appendix A.

Operable Unit 2. A recent amendment to the OU2 AOC provided EPA and the State with indefinite O&M assurances. As stated in the AOC Amendment, the O&M Plan, as defined by the EE/CA, Action Memorandum and original workplan, will provide for indefinite maintenance of runoff control, dust control, restricted site access and site reclamation measures. This O&M Plan will become effective upon the termination of the permit with the Colorado Mined Land Reclamation Board and will be implemented by the PRP, Wright and Preusch Mining, LTD.

Progress Since The Last Five-Year Review

The second five-year review, completed on September 23, 2002, indicated that the remedy was protective of human health and the environment. Three issues, that did not immediately impact the protectiveness of the remedy, were identified. Below is an update of those issues:

Smuggler Mountain Superfund Site Second Five-Year Review Update

Issues	Recommendations/ Follow-up Actions	Follow-up Actions	Responsible Party
1) No consistent protocol for visual inspections of the OU1 residential area.	Pitkin County will inspect the OU1 residential area for ordinance compliance once a month during no-snow months.	Monthly inspections began in April of 2003 and were subsequently conducted for all no-snow months from 2003 through 2006.	Pitkin County
2) No protocol to remind residents in OU 1 of procedures required under ordinances.	Pitkin County to send notices, detailing ordinance requirements, to all residents living within OU1 by April 2003.	The written notice was mailed to all applicable residents on May 8, 2003.	Pitkin County
3) Access controls for OU2 may not be as effective as needed.	Wright & Preusch Mining will need to complete the watchman's quarters within one year.	Due to economic constraints, the quarters could not be completed in 2004. Watchman's quarters were completed in the 2 nd Quarter FY05. Inspections of fence surrounding OU2 increased in frequency.	Wright and Preusch Mining

IV. Five-Year Review Process

The five-year review was led by Armando Saenz, Remedial Project Manager for the Site. The following team members assisted in the review:

- Rob Henneke, EPA Community Involvement Coordinator
- Andy Lensink, EPA Attorney
- Angus Campbell, CDPHE Project Manager

The five-year review consisted of the following activities: a review of relevant documents; interviews; review of ARARS and O&M data; and, a site inspection. Notices that the five-year review was in progress were placed in the Aspen Times on March 28, 2007. In July 2007, a notice will be placed in the Aspen Times announcing that the five-year review has been completed and that copies of the report are available for public review at the following locations:

U.S. EPA Region 8 Central Records
1595 Wynkoop Street
Denver, CO 80202-1129
(303) 312-6473

Pitkin County Environmental Health & Natural Resources Department

0405 Castle Creek Road, Suite 10
Aspen, CO 81611
(970) 920-5070

There have been no concerns expressed by local residents about the Site or Pitkin and Aspen officials. One local resident commented that the cleanup seems ok, that the ICs are working and that it is good that EPA is following up on the effectiveness of the cleanup.

V. Five Year Review Findings

Interviews

The following individuals were interviewed during the inspection on April 18, 2007:

- **Rose Ann Sullivan**, Environmental Resources Manager for the Pitkin County Environmental Health & Natural Resources Department. Pitkin County is the OUI PRP.
- **Warren C. Rider**, Natural Resource Specialist for the Pitkin County Environmental Health & Natural Resources Department.
- **Lee Cassin**, Environmental Health Director for the City of Aspen. Pitkin County and Aspen work together to implement and enforce the OUI institutional controls.
- **Chris Preusch**, President of New Smuggler Mine Corporation (formerly Wright & Preusch Mining, Ltd). The New Smuggler Mine Corporation is the PRP for OUI2.

Rose Ann Sullivan, Warren C. Rider and Lee Cassin. Ms. Sullivan, Mr. Rider and Ms. Cassin were interviewed together during the site inspection on April 18 for OUI. Implementation and enforcement of ICs set out in the OUI Consent Decree were discussed with a focus on the permitting process. The process requires a property owner to fill out a permit form if movement of more than one cubic yard of contaminated soil is necessary.

Ms. Sullivan and Mr. Rider explained that the form and procedural requirements were changed in 2006 to accommodate rising disposal costs for soil. Soil tipping fees at the Pitkin County Landfill have risen over the years. The landfill also reinstated soil tipping fees for soils and other excavated material from the Site. As a result of these changes, Pitkin County developed guidelines (with guidance from CDPHE) in June of 2006 to follow during instances when a developer utilizes uncontaminated soil from the Site or other potentially contaminated area as fill in unincorporated Pitkin County. Under OUI remedy, uncontaminated soil is defined as soil containing lead concentrations of less than 1000 ppm. The guidelines are summarized in a memo in Appendix A.

Permits of various situations were reviewed and discussed. The following are summaries of the documents that were reviewed (and are compiled in Appendix B):

1. Blank permit form with general information;
2. Soil removal permit (before implementation of guidelines in 2006) with two affidavits, trucking log and Pitkin County Landfill Statement to verify movement of excavated soil

- from the property to the landfill; and,
3. Soil removal permit (after implementation of guidelines in 2006) with affidavit.

It was also explained that Pitkin County and Aspen instituted a three-tiered process to enforce the IC ordinances. When a violation of ICs or other sections of the Consent Decree are noted, the following steps are activated:

1. Discovery of a violation requires a verbal warning to the responsible party;
2. Warning for the same offense results in a written notice to the responsible party; and,
3. If there is no satisfactory response to the written notice, a summons to appear before either the Municipal Court or the County Court is sent to the responsible party (i.e. property owner). The jurisdiction of the court is dependent on property location.

Depending on the significance of the violation to human health and the environment, steps one and two can be bypassed. If the situation is dangerous and urgent enough, step three can be implemented without implementing steps one and two.

In general, they believed that the enforcement process for OUI was effective in protecting human health and the environment. It appears that one of the major reasons for the success of the enforcement process is the strong partnership between Pitkin County, Aspen and the community.

Chris Preusch. The meeting with Mr. Preusch took place during the inspection of the mine area (i.e. OU2). He said that he did not think there were any problems with respect to runoff control, dust control, site access and site reclamation. OU2 is maintained on an as needed basis.

He mentioned that on May 28, 2003, Wright & Preusch Mining transferred ownership of the Smuggler Mine to New Smuggler Mine Corporation by special warranty deed. He is the president of the new company which is now the OU2 PRP responsible for implementing AOC requirements. It now is responsible for the requirements of the Limited Impact Mining Operation Permit with the Colorado Mined Land Reclamation Board.

He stated that the "watchman's quarters" required by the mining plan of the permit was completed in 2005. The quarters is essentially a trailer, hooked up to power and water, on a landing of the mine area. He also mentioned that there is a person living in the trailer on a regular basis and implied that the person serves the same purpose as a watchman.

Site Inspection

The Site was inspected on April 18, 2007. OU2 was first inspected followed by OU1.

Operable Unit 2. OU2 was inspected with respect to runoff control, dust control, site access and site reclamation. Although there was a lot of "junk" on the main mine bench, the mine area appeared to be well maintained. The four areas of interest seemed to have been adequately addressed. Vegetation was thorough and abundant throughout the mine area. There were a few signs of erosion from recent storms, although not significant to the protection of human health and the environment. Signs of regrading were also present. Roads leading up to and in the mine area appeared well maintained with no dust problems. The fence surrounding the mine appeared to be in good condition. No significant effects of burrowing animals and erosion were observed.

Operable Unit 1. Molly Gibson Park was inspected first followed by the residential area. The

park appeared well maintained. The grass and trees (i.e. vegetative cover) looked healthy and there were no signs of erosion at the perimeter of the park.

The residential area was inspected with Rose Ann Sullivan and Warren C. Rider of Pitkin County and Lee Cassin of the City of Aspen. Two major construction projects within OU1 were encountered. Ms. Sullivan and Mr. Rider mentioned that the property owners, associated with the projects, were in compliance with the required ICs. All observed properties (including those previously addressed with permits) were properly maintained. No IC violations were encountered.

ARARs Review

As part of the five-year review, Applicable and Relevant and Appropriate Requirements (ARARs) were reviewed. The primary purpose of this review was to determine if any newly promulgated or modified requirements of federal and state environmental laws have significantly changed the protectiveness of the remedies implemented at the Site. The ARARs reviewed were those included in the Site's decision documents.

Overall, EPA found no newly promulgated or modified ARARs that would change the protectiveness of the remedies implemented at the Site. EPA will continue to monitor this Site and any future changes in ARARs will be reported in the next five-year review.

Data Review

Operable Unit 1. A review of records during the inspection and semi-annual reports received since 1995 indicates that OU1 is being managed as required by the Consent Decree.

Operable Unit 2. A review of records and the mine area during the inspection indicates that OU2 is being maintained as required by the Administrative Order on Consent and in accordance with the limited impact permit.

VI. Assessment

The following conclusions support the determination that the remedy at the Site is protective of human health and the environment.

Question A: Is the remedy functioning as intended by the decision documents?

- ***HASP/Contingency Plan:*** Both the HASP and the Contingency Plan are not pertinent to the Site because there is no active remedy in place.
- ***Implementation of Institutional Controls and Other Measures:*** With the OU1 Consent Decree and current ordinances, Pitkin County has indefinitely assured EPA and the State that all necessary ICs will be in full force and effect within Site boundaries. The Consent Decree also includes reopeners in the event that Pitkin County repeals or disregards the ordinances currently in place. A review of records during the inspection and semi-annual reports received since 1995 indicates OU1 is being managed as required by the Consent Decree.

For OU2, an amendment to the AOC in 1999 provided EPA and the State with indefinite O&M assurances. As stated in the AOC Amendment, the O&M Plan, as defined by the EE/CA,

Action Memorandum and original workplan, will provide for indefinite maintenance of runoff control, dust control, restricted site access and site reclamation measures. This O&M Plan will become effective upon the termination of the permit with the Colorado Mined Land Reclamation Board and will be implemented by the PRP, New Smuggler Mine Corporation. Access controls are in place in the mine area including a fence and a warning sign. The Site fence is in good condition. A review of records and the mine area during the inspection indicates that OU2 is being maintained as required by the AOC and in accordance with the limited impact permit.

There are no current or planned changes in land use at the Site.

- **Remedial Action Performance:** There is no active remedial action at the Site.
- **System Operations/O&M:** The OU1 O&M Plan is represented in its entirety by the ICs enacted for OU1 under the Consent Decree. A review of records during the inspection and semi-annual reports received since 1995 indicates OU1 is being managed as required by the Consent Decree.

For OU2, an amendment to the AOC in 1999 provided EPA and the State with indefinite O&M assurances. A review of records and the mine area during the inspection indicates that OU2 is being maintained as required by the AOC and in accordance with the limited impact permit.

- **Cost of System Operations/O&M:** No operation or maintenance costs were provided.
- **Opportunities for Optimization:** There are no opportunities for optimization.
- **Early Indicators of Potential Remedy Failure:** No early indicators of potential remedy failure were noted during the review.

Question B: Are the assumptions made at the time of the remedy selection still valid?

- **Changes in Standards:** No newly promulgated or modified ARARs that would change the protectiveness of the remedies implemented at the Site were found.
- **Changes in Exposure Pathways:** No changes in the site conditions that affect exposure pathways were identified as part of the five-year review. First, there are no current or planned changes in land use. Second, no new contaminants, sources, or routes of exposure were identified as part of this five-year review. Finally, there is no indication that surface and/or hydrologic/hydrogeologic conditions are not adequately characterized.
- **Changes in Toxicity and Other Contaminant Characteristics:** Changes in toxicity and other factors for contaminants of concern since the time of the ROD and subsequent changes do not call into question the protectiveness of the remedy.
- **Changes in Risk Assessment Methodologies:** Changes in risk assessment methodologies since the time of the ROD and subsequent changes do not call into question the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No additional information has been identified that would call into question the protectiveness of the remedy.

VII. Issues

ISSUES THIRD FIVE-YEAR REVIEW		
#	Issues	Currently Affects Protectiveness Yes/Potentially/No (Y/P/N)
1	During the inspection, it was found that a continued and agreeable protocol was needed for visual inspection of the OU1 residential area for ordinance (i.e. IC) compliance.	N
2	During the inspection, it was found that a reoccurring protocol was needed to remind residents in OU1 of the procedures required under the ordinances passed by the City of Aspen and Pitkin County related to ICs.	N

VIII. Recommendations and Follow-up Actions

CORRESPONDING RECOMMENDATIONS AND FOLLOW-UP ACTIVITIES THIRD FIVE-YEAR REVIEW				
#	Issues	Recommendations/ Follow-up Actions	Party Responsible	Due Date
1	During the inspection, it was found that a continued and agreeable protocol was needed for visual inspection of the OU1 residential area for ordinance compliance.	On the day of the inspection, Pitkin County agreed to inspect the OU1 residential area for ordinance compliance twice a year: at the beginning (April) and end (October) of the construction season. The letter of agreement was received on April 23, 2007.	Pitkin County	Ongoing (twice every year)
2	During the inspection, it was found that a reoccurring protocol was needed to remind residents in OU1 of the procedures required under the ordinances passed by the Aspen and Pitkin County.	On the day of the inspection, Pitkin County agreed to send notices, detailing ordinance requirements, to residents every five years (in conjunction with five-year reviews). The letter of agreement was received on April 23, 2007. A copy of the notice was received on April 30, 2007. The notices were sent to all residents within OU1 by the end of April of this year.	Pitkin County	Done

IX. Protectiveness Statements

The remedy at the Smuggler Mountain Superfund Site is protective of human health and the environment. Institutional controls for OU1 are in full force and effect and in accordance with the OU1 Consent Decree. The mining area is being properly maintained and is in accordance with the OU2 AOC.

X. Next Review

This is a statutory site that requires ongoing five-year reviews. The next review will be conducted within five years of the completion of this five-year review report. The completion date is the date of the signature shown on the cover attached to the front of the report.

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APPENDIX A

Guidelines for Use of Uncontaminated Soil

MEMORANDUM

BY EMAIL

TO: Angus Campbell and Roger Doak, CDPHE

CC: Armando Saenz, U.S. EPA, Region VIII

FROM: Rose Ann Sullivan, Pitkin County Environmental Health & Natural Resources Department

RE: Disposal of Smuggler Soil and Other Potentially Contaminated Soil Outside of the Pitkin County Landfill

DATE: June 30, 2008

The primary purpose of this Memorandum is to summarize the guidelines that Pitkin County proposes to follow in instances where a developer desires to utilize "uncontaminated soil" from the Smuggler Superfund Site ("Smuggler") as fill in unincorporated Pitkin County.¹

A secondary purpose of this Memorandum is to summarize the guidelines that Pitkin County proposes to follow in instances where a developer desires to utilize soil from another abandoned mine site (or other potentially contaminated area) as fill in unincorporated Pitkin County.²

These guidelines have been developed through our discussions with you over the last two months. Once again, we thank you for your assistance working through these issues. If you have any questions or concerns about these guidelines, please give me a call as soon as possible.

• **Smuggler Institutional Controls:** The Smuggler Institutional Controls adopted by both the County and the City of Aspen require that soils or other material with lead concentrations of $\geq 1,000$ ppm that are removed from Smuggler must be disposed of at "a duly licensed and authorized facility," such as the Pitkin County Landfill. The County tracks disposal of contaminated soil and other contaminated materials by a "Smuggler Mountain Superfund Site Soil Removal Permit" system. This disposal requirement and

¹ Under the Smuggler Institutional Controls, "uncontaminated soil" is soil containing lead concentrations of $< 1,000$ ppm.

² Soil tipping fees at the Pitkin County Landfill have risen over the last year. Additionally, the Landfill recently reinstated soil tipping fees for soils and other excavated material from Smuggler. As a result of these changes, large developments on Smuggler are looking for alternative locations to dispose of uncontaminated soil. Thus, we have been faced with an immediate need to provide developers with guidelines for alternative disposal of Smuggler soil in Pitkin County.

³ We do not expect this to be an issue. However, since we were dealing with the question of disposal of Smuggler soils, we thought it was an appropriate time to consider treatment of questionable fill coming off other sites.

This tracking system will remain in place. No changes are being made to this system, which has been in place for a number of years.

The Smuggler Institutional Controls also allow the respective jurisdictions to require any person undertaking development within the Site to test any soil or material to establish its total lead (Pb) content for purposes of determining the application of [the Institutional Controls]. Such testing must utilize and adhere to protocols established or approved by the U.S. EPA. Under this authority, staff will permit a developer to conduct suitable sampling and testing of excavated materials, when necessary, to differentiate and segregate contaminated soils and other materials (which must be disposed of at the Pitkin County Landfill or another duly licensed facility) from uncontaminated soils and other materials (which are not subject to the Institutional Controls). Staff will require the developer to: (i) obtain staff review and approval of its sampling methodology, (ii) certify in writing that its sampling methodology and testing utilized and adhered to U.S. EPA established protocols, and (iii) provide staff with its analytical test results demonstrating a lead content of < 1,000 ppm.

• **Earthmoving Permits and Other Land Use Approvals:** Due to the potential increase in disposal of uncontaminated soils (< 1,000 ppm of lead) from Smuggler outside of the landfill, and developers' desire for certainty with respect to County requirements for disposal of such material, the County will follow the "protocol" summarized below in its review of Earthmoving Permit applications and other land use reviews:

Uncontaminated Soils and Other Material from Smuggler: A developer that desires to utilize fill material that has passed Institutional Controls testing for lead (as outlined above) will be required to further analyze the proposed fill material and support its County permit application with the following documentation:

i. A description of the sampling and testing methodology used on the fill material, an analysis of the test results, and a certification that U.S. EPA-established protocols were utilized and adhered to.

ii. A certification that: (a) under federal and state law, the fill material does not constitute a hazardous substance requiring disposal at a duly licensed and authorized receiving facility for hazardous waste, and (b) the fill material does not exceed the values for the "Metals and Inorganic Compounds" listed in the attached Table.⁶

⁵ Certifications required under this Memorandum must be provided by a professional environmental consultant knowledgeable and experienced with respect to the requirements of federal and state law governing characterization of hazardous substances and hazardous waste management.

⁶ The attached Table is derived from Table 1, "Soil Cleanup Value Standards," in the COPHE, Hazardous Materials and Waste Management Division's "Proposed Soil Remediation Objectives Policy Document" (December 1997).

The Division's original Table 1 allows for higher levels of chemicals in both "Commercial" and "Industrial" areas. As we discussed, the County will use the lower levels designated by the Division for "Residential/Unrestricted" land uses for all parcels in the County. Additionally, the Division's original Table 1 does not specify maximum concentration levels for some chemicals when the chemicals do need to be protective of groundwater, and in some instances, allows

Potentially Contaminated Soils and Other Material from Other Abandoned Mine Sites, Sites Which Previously Stored Junked Vehicles, Oil or Gasoline Tanks, or Other Chemicals: In those instances where a developer desires to utilize fill from another abandoned mine site, or other parcel which the County believes may contain hazardous substances, the developer will be required to analyze the proposed fill material and support its permit application with the following documentation:

i. For abandoned mine sites:

(a) The results of a Toxicity Characteristic Leaching Procedure ("TCLP") analysis of the fill material demonstrating that the material passes the TCLP test with respect to all eight of the Resource Conservation and Recovery Act ("RCRA") metals.

(b) A certification that, under federal and state law, the fill material does not constitute a hazardous substance requiring disposal at a duly licensed and authorized receiving facility for hazardous waste.

(c) A certification that (1) the fill material does not exceed the values for the 'Metals and Inorganic Compounds' listed on the attached Table (supported by the actual test results), and (2) U.S. EPA-established protocols for sampling and testing were utilized and adhered to in determining this fact.

Depending upon the history of the site, the County may also require sampling and analysis for additional compounds listed on the attached Table.

ii. For other potentially contaminated sites:

(a) A certification that, under federal and state law, the fill material does not constitute a hazardous substance requiring disposal at a duly licensed and authorized receiving facility for hazardous waste.

(b) A certification that (1) the fill material does not exceed the values for the relevant compounds listed on the attached Table (supported by the actual test results), and (2) U.S. EPA-established protocols for sampling and testing were utilized and adhered to in determining this fact. The 'relevant compounds' must be determined in consultation with County staff, on a case by case basis (depending upon an analysis of the history of the site).

Sites in Proximity to Surface Waters, Groundwater, or Other Sensitive Environments: Potential soil contamination is only one factor which will be considered by the County in evaluating a permit application. Whether the fill is uncontaminated soil from Smuggler or from another potentially contaminated location, the site specific characteristics of the receiving parcel will also be evaluated. Thus, a developer may also be required to independently address any technical or regulatory concerns the

higher chemical concentrations than those associated with a designated land use. The County is requiring that, at a minimum, the 'Residential/Commercial/Industrial/Unrestricted Land Use' levels be utilized as threshold indicators for groundwater protection.

County may have with placement of the fill in proximity to surface waters, ground water, or other sensitive environments (e.g., wetlands).

Attachment (Table - Soil Value Standards)

Table: Soil Value Standards [mg/kg] (6)							
Chemical	CAS	Residential/ Commercial/ Industrial/ Unrestricted		Soil Concentration Protective of Groundwater (4)		Leachate Reference Concentration	
		[mg/kg]	Notes	[mg/kg]	Notes	[mg/l]	Notes
Volatile Organic Compounds							
Benzene	71-43-2	0.60	c	0.17		NA	
Carbon Tetrachloride	56-23-25	0.23	c	0.925		NA	
1,1-Dichloroethane	75-34-3	546.80	nc	16.5		NA	
1,1-Dichloroethylene	75-35-4	0.05	c	12.0		NA	
Ethylbenzene	100-41-4	1.000	5,nc	104.3		NA	
Pentachlorophenol	87-80-5	0.51	c	0.045		NA	
Tetrachloroethylene	127-18-4	2.02	c	1.875		NA	
Toluene	108-88-3	657.85	nc	85		NA	
1,1,1-Trichloroethane	71-55-6	797.19	nc	62.5		NA	
Trichloroethylene	79-01-6	2.99	c	0.675		NA	
Vinyl chloride	75-01-4	0.02	c	7.0		NA	
Semi-Volatile Organic Compounds							
Naphthalene	91-20-3	289.1	nc	51.4		NA	
Phenol	108-95-2	1,000	5,nc	23.675		NA	
Xylene (total)	1330-20-7	1,000	5,nc	1,000	5	NA	
Pesticides/PCBs							
DDT	50-29-3	0.58	c	1,000	5	NA	
Dieldrin	60-57-1	0.01	c	1,000	5	NA	
PCBs	1336-36-3	0.07	c	1,000	5	NA	
-Aroclor 1016	126-74-112	2.99	nc	1,000	5	NA	
-Aroclor 1254	110-97-691	0.63	nc	1,000	5	NA	
Metals and Inorganic Compounds							
Arsenic	7440-38-2	78.0	c, 7	NA (Use 7E 9)		?	
Cadmium and compounds	7440-43-9	99.5	nc	NA (Use 9E 5)		0.11	
Chromium (VI)	7440-47-3	53.94	nc	NA (Use 53 94)		2.2	1
Copper and compounds	7440-50-8	2,570	nc	NA (Use 2 570)		22	
Lead	7439-92-1	400	nc, 3	NA (Use 400)		1.1	
Mercury (inorganic)	7439-97-8	17.66	nc	NA (Use 17 65)		0.044	

NOTES

0 - Standard based on carcinogen risk

00 - Standard based on noncarcinogen risk

NA - Not Applicable. Use of this code to select an remediation objective under this table is based on the CDPHE's "Proposed Soil Remediation Objectives Policy Document" (Dec. 1997) which does not allow for the calculation of a soil concentration limit. This column

1 - For total chromium

2 - Includes residential areas, playgrounds, parks and other open areas, as well as industrial and commercial sites

3 - EPA July 14, 1991 "Regional Interim Soil Lead Guidelines for the RCRA Site and RCRA Cleanup Action Plan" (Table 2) - Value 800-4

4 - To be used when there may be direct contact with surface or groundwater resources. (Soil remediation standard to be used (A1))

5 - Upper Concentration Limit

6 - Derived from Table 1, "Soil Cleanup Value Standards" of the CDPHE's "Proposed Soil Remediation Objectives Policy Document" (Dec. 1997)

7 - Higher Arsenic level utilized than in the CDPHE's Table 1 (reflecting higher natural background levels), based upon the recommendation of CDPHE staff in a June 21, 2006 conference call

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APPENDIX B

Permit Documentation

APPENDIX B1

SMUGGLER MOUNTAIN SUPERFUND SITE SOIL REMOVAL PERMIT

Building Permit Number: _____

No person shall undertake or conduct any development or other activities within the Smuggler Mountain Superfund Site (Site) involving the excavation or exposure of more than one (1) cubic yard of soil without first obtaining a permit from the City of Aspen Environmental Health Department or Pitkin County Environmental Health and Natural Resources Department. Development or other activities involving excavation of less than one (1) cubic yard of soil do not require a permit, but must still comply with the Institutional Controls adopted by the City of Aspen and Pitkin County.

Contaminated soils and other contaminated materials from the Site may only be taken to the Pitkin County Landfill or another duly licensed and authorized receiving facility for disposal. VEHICLES HAULING CONTAMINATED SOIL AND OTHER CONTAMINATED MATERIAL MUST COVER THE SOIL/MATERIAL TO EFFECTIVELY PREVENT IT FROM BLOWING OUT OF THE VEHICLE AND MUST OBTAIN ANY NECESSARY STATE AND/OR FEDERAL TRANSPORTATION AND DISPOSAL PERMITS.

Property address: _____

Parcel ID: _____

Name of property owner(s): _____

Mailing address(es): _____

Phone number(s): _____

Name of applicant: _____

Relation to property owner(s): _____

Applicant's address: _____

Applicant's phone number: _____

Describe activity that will take place: _____

Depth of excavation: _____

Surface area disturbed (sq. ft): _____

Cubic yards of material to be excavated: _____

Cubic yards of excavated material to be retained on site: _____

Cubic yards of material to be disposed of off site: _____

Location where material will be disposed:

Contaminated material: _____

Uncontaminated material: _____

How long will excavated material be exposed on surface? _____

How will applicant identify and segregate clean fill material from contaminated fill material (soil with lead content of $\geq 1,000$ ppm) during the excavation or development period? _____

How does applicant plan to backfill, cover, and revegetate contaminated soil or other contaminated material left on-site? _____

Applicant agrees to comply with the Institutional Controls adopted by Pitkin County and the City of Aspen:

Signature of Applicant or Applicant's Authorized Representative: _____

Date: _____, 20__

OFFICIAL APPROVAL/DENIAL AND ADDITIONAL CONDITIONS

City of Aspen Environmental Health Director/Pitkin County Environmental Resources Manager (as appropriate and acting as designee of the City of Aspen/Pitkin County Chief Building Official):

Approved: _____ Denied: _____

Signature: _____

Date: _____, 20__

Additional Conditions (if any): _____

AFFIDAVIT 1

The undersigned, _____
_____ (print name), states and agrees as follows:

1. I am the legal owner/one of the legal owners/an authorized representative of the legal owner(s) of a certain parcel of real estate, known as (street address) _____

_____, Aspen, Colorado _____, which property is located within the Smuggler Mountain Superfund Site (Site), as designated by the U. S. Environmental Protection Agency (EPA).

2. I have proposed to do certain excavation work upon the referenced property, which work I acknowledge is subject to Institutional Controls on the Site, as the excavated soils contain \geq 1,000 parts per million (ppm) of lead. I understand and agree that such excavated material shall be handled in conformance with the EPA's Record of Decision and the Institutional Controls adopted by the City of Aspen/Pitkin County for the Site.

3. I will direct my contractors and any other persons working for me during this excavation and ensure that all excavated materials containing \geq 1,000 ppm of lead are transported to an approved repository site (e.g., the Pitkin County Landfill), where they will be subject to inventory and be deposited in accordance with repository regulations. It is currently estimated that this project will require the excavation of _____ cubic yards of materials, all of which materials actually excavated shall be accounted for in accordance with current regulations. At the conclusion of my project, I understand that I shall be required to confirm the proper accounting and handling of all such excavated materials before my final Certificate of Occupancy will be issued by the Chief Building Official for the City of Aspen/Pitkin County.

4. I understand that the falsification of information contained in this affidavit may subject me to civil and criminal penalties under local, state and federal law, including response costs and penalties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

Signature of Owner or Owner's(s) Authorized Representative
(in the case of a corporation, LLC, trust, etc.)

Date: _____, 20 ____

AFFIDAVIT 2

The undersigned, _____
(print name), states as follows:

1. I am the legal owner/one of the legal owners/an authorized representative of the legal owner(s) of a certain parcel of real estate, known as (street address) _____, Aspen, Colorado _____, which property is located within the Smuggler Mountain Superfund Site, as designated by the United States Environmental Protection Agency (EPA).
2. Sampling data show that soil on my property contains lead levels $\geq 1,000$ ppm. I am aware that this concentration of lead in my soil has caused EPA, Pitkin County and the City of Aspen to place certain restrictions, including Institutional Controls, on the movement and disposal of this contaminated material. I certify that I have complied with those restrictions during the course of the construction project undertaken on my property.
3. I confirm that _____ cubic yards of contaminated excavated material were removed from my property and were delivered to the Pitkin County storage repository located at the Pitkin County Landfill, as required by my building permit.
4. I understand that the falsification of information contained in this affidavit may subject me to civil and criminal penalties under local, state and federal law, including response costs and penalties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

Signature of Owner or Owner's(s) Authorized Representative
(in the case of a corporation, LLC, trust, etc.)

Date: _____, 20 ____

Applicant Information
Smuggler Mountain Superfund Site (the Site)

Definitions

- "Activity" means any action occurring on, above, or below the surface of the ground within the boundaries of the Site which results, or may result in disturbance of 1 cubic yard of soil within the Site.
- "Applicant" means the person(s) or entity(ies) responsible for the excavation and removal of contaminated soil or other contaminated material from the Site. In most cases this will be the property owner(s).
- "Contaminated soil or other contaminated material" means soil or other material containing lead concentrations of $\geq 1,000$ parts per million (ppm).
- "Development" means any construction or man-made change in the use or character of land including, but not limited to, building, grading, excavating, digging, paving, drilling, planting, or landscaping.
- "EPA" means the U.S. Environmental Protection Agency.
- "Hard surface cover" means a non-permeable or semi-permeable barrier overlaying the ground surface, such as paving, asphalt, concrete, stone or wood, and including buildings and other permanent structures.
- "Institutional Controls" means the special regulations pertaining to development or other activities within the Site which may cause or contribute to the movement or disturbance of contaminated soil or other contaminated material. The Institutional Controls are available online at: <http://www.aspenpitkin.com/pdfs/depts/12/cc.ord.025-94.pdf> (Pitkin County) and <http://www.aspenpitkin.com/pdfs/depts/44/cc.ord.025-94.pdf> (City of Aspen).
- "Landfill" means the Pitkin County Landfill.
- "Vegetative cover" means plant life, including but not limited to grass, trees, shrubs, vines and sod, planted or installed in such a manner as to prevent or minimize the exposure of ground soil.

Permitting Requirements and Process

- Applicants must complete a Smuggler Mountain Superfund Site Soil Removal Permit application for any development or other activity, including landscaping projects, involving the excavation or exposure of more than 1 cubic yard of soil. Applications are available at the Aspen Environmental Health Department (Aspen EHD), the Pitkin County Environmental Health and Natural Resources Department (Pitkin County EH/NR), and the Community Development offices of the City of Aspen and Pitkin County.
They are also available on the City and County websites at:
http://www.aspenpitkin.com/pdfs/depts/44/soil_removal_permit_affdavits.pdf and
http://www.aspenpitkin.com/pdfs/depts/12/soil_removal_permit_affdavits.pdf. The Aspen EHD issues the permit when the site is within the city limits. If the site is in Pitkin County (but outside Aspen city limits) the Pitkin County EH/NR issues the permit.
- If the application originates with the City of Aspen, the originals are forwarded to Pitkin County EH/NR. A copy of the permit and Affidavit 1 is given to the applicant to take to the Landfill with the first truckload of contaminated soil or other contaminated material. A copy of the permit is also faxed to the Landfill for its records. Affidavit 2 is given to the applicant to complete after all development or other activities have been completed.

- If the application originates with Pitkin County, a copy of the permit and Affidavit 1 is given to the applicant to take to the Landfill with the first truckload of contaminated soil or other contaminated material. A copy of the permit is also faxed to the Landfill for its records. The originals are retained by Pitkin County EH/NR. Affidavit 2 is given to the applicant to complete after all development or other activities have been completed.
- The Gatekeeper at the Landfill tracks the amount of contaminated soil or other contaminated material brought into the Landfill and verifies it with the volume documented on Affidavit 1. Applicants should contact the Landfill for fees associated with disposal of contaminated soil or other contaminated material.
- The completed original of Affidavit 2 must be returned to Pitkin County EH/NR along with the Landfill receipts. Aspen EHD should receive a copy of Affidavit 2 for its records when the property is in the City of Aspen.

Performance Standards; Site Maintenance

- **Excavation and construction.** Any disturbed soil or other material that is, or may be contaminated, and that is to be stored above ground shall be securely contained on and covered with a durable non-permeable tarp or other protective barrier approved by Aspen EHD or Pitkin County EH/NR so as to prevent the leaching of contaminated material onto or into the surface soil. Sufficient measures must be taken to prevent soil from being tracked off-site.
- **Removal of contaminated material.** No contaminated soil or other contaminated material shall be removed, placed, stored, transported or disposed of outside the boundaries of the Site without having first obtained any and all necessary state and/or federal transportation and disposal permits. Contaminated soil or other contaminated material need not be taken to the Landfill if Aspen EHD or Pitkin County EH/NR finds that there exists a satisfactory method of disposal at the excavation site, or if the material is being taken to another duly licensed and authorized receiving facility (in which case, special arrangements will need to be made to track the material). The City and County may require soil testing to determine lead content of any soil or other material on the Site.
- **Dust suppression.** All development and other activities shall be accompanied by dust suppression measures (such as the application of water or other soil surfactant) to minimize the creation and release of dust and other particulates into the air. The Aspen EHD or Pitkin County EH/NR may require air monitoring to ensure the effectiveness of dust suppression measures.
- **Vegetable and flower gardening or cultivation.** No vegetables or flowers shall be planted or cultivated within the boundaries of the Site except in garden beds consisting of not less than 12" of uncontaminated soil.
- **Surface coverage.** All areas of the Site must be maintained with a permanent vegetative or hard surface cover. Except as allowed pursuant to a duly obtained permit, no person may alter any part of a permanent vegetative or hard surface cover absent prior notice to the Aspen EHD or Pitkin County EH/NR. To obtain a "clean letter," a minimum of 12" of uncontaminated soil must be placed over contaminated soil or other contaminated material, and the area revegetated after a construction or landscaping project has taken place. It is also acceptable to cover contaminated soil or other contaminated material with 12" of gravel, or pave it with concrete or asphalt.
- **No erosion.** All areas within the Site must be maintained in a manner to minimize erosion, including adequate provision for drainage and surface water run-off so as to prevent the formation of standing pools, ditches or gullies.

- **New or expanded play areas.** No new outdoor playing field, playground, or other recreational area may be established or constructed within the Site, nor may existing playing fields, playgrounds or recreational areas be expanded without prior review and approval of the Aspen EHD and/or Pitkin County EH/NR (in addition to all other necessary City/County approvals).

Inspections

- All areas within the Site are subject to inspection by the Aspen EHD or Pitkin County EH/NR in order to enforce the Institutional Controls. On-site inspections are done with the consent of the property owner or occupant. If consent is denied, a court order can be sought.

"Clean Letters"

- Property owners within the Site who have correctly remediated their property are supposed to receive a "clean letter" from EPA, stating that the property requires no further remediation.
- After a property has been fully remediated, Pitkin County EH/NR sends a letter to the EPA identifying the property owner(s) and the property, and requesting that a "clean letter" be sent. The EPA sends "clean letters" directly to property owners. Pitkin County does not receive a copy. The County's only record of properties that have been cleaned is the notification letter sent to the EPA.

Violations/Enforcement

- If the Aspen EHD or Pitkin County EH/NR determines that a violation of the Institutional Controls has occurred during a monthly inspection, or at any other time, the following actions may be taken:
 - Verbal warning (given by Pitkin County EH/NR or Aspen EHD staff), followed by written notice to the property owner(s) of the violation and corrective action required. Violations must be corrected immediately and will be evaluated at the next monthly inspection.
 - Citation and Court Summons (if necessary) – The City of Aspen and/or Pitkin County will issue a citation, or take other enforcement action (e.g., a Stop Work Order) if the violation is not timely corrected. A court summons may be issued to the property owner(s) and/or developer in violation.

APPENDIX B2

Apr. 8. 2005 10:05AM

No. 4859 P. 2

SMUGGLER MOUNTAIN SUPERFUND SITE SOIL REMOVAL PERMIT

COLORADO, ARBE
2005, ARBE
2005, ARBE
ARBE

Building Permit Number

No person shall undertake or conduct any activities or development within the Smuggler Mountain Superfund Site (Site) involving the excavation or exposure of more than one (1) cubic yard of soil without first obtaining a permit from the Director of the Aspen/Pitkin Regional Building Department. Activities of development involving excavation of less than one (1) cubic yard of soil do not require a permit, but shall be subject to the requirements as set forth in Institutional Controls Section 914 in the County or Section 7-143 in the City (attached)

Contaminated soils from the Site may only be taken to the Pitkin County Landfill for disposal.

Property owner SCOTT HICKS + MARIEAN KUNY Phone # 920-542-1111

Mailing address: 2 WILLIAMS WAY

Property address: 2 WILLIAMS WAY

Describe activity that will take place: Excavation at 2 Williams Way, Aspen CO, in order to install foundations for the relocation of two historic buildings on same property and a new residence

Depth of excavation: 17 ft Surface area disturbed (sq. ft) 9,000 sq. ft

Cubic Yards of material to be excavated 2,360 Cu. yd.

Cubic Yards of excavated material to be retained on site 750 Cu. yd.

Cubic Yards of material to be disposed of off site 1,610 Cu. yd.

How long will excavated material be exposed on surface? 30 days (clean native soil only)

How will the applicant identify and segregate clean fill material from contaminated (soil with lead content at 1,000 parts per million or higher) fill material during the excavation or development period?
I used on the subsoil study by HPG Geotech (11/1/04) the native soils were underlain by 3 to 5 ft of historic fill which contains lead within 1000ppm. The "natives" are of distinct character from the fill. project superintendent has recently completed two excavations involving

How does the applicant plan to backfill, cover, and revegetate contaminated soil left on site?
No disturbed contaminated soil will be left on site. Excavations will be backfilled with site "natives" or clean imported fill. The remaining excavation will be covered with clean top soil and re-vegetated.

lead contaminated soils at the "Top of Mill Street", Aspen, CO.

Apr. 8. 2005 10:06AM

No. 4859-P. 4

I (applicant) agree to comply with all Performance Standards, Soils Testing, and Inspection and Maintenance as described in the Institutional Controls adopted by Pitkin County.

VEHICLES HAULING SOIL TO THE PITKIN COUNTY LANDFILL MUST COVER THE SOIL TO EFFECTIVELY PREVENT IT FROM BLOWING OUT OF THE VEHICLES.

Applicant's Signature: [Signature] Date: 4/8/05

OFFICIAL RESPONSE AND CONDITIONS

Chief Building Official or designated agent:

Approval: _____ Denial: _____

Signature: _____ Date: _____

Environmental Health Director or designated agent:

Approval: Denial: _____

Signature: [Signature] Date: 4/8/05

Comments: Control measure listed are adequate, case sampling has been done to identify contaminated soils

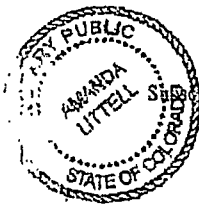
AFFIDAVIT

County of Pitkin }
 } s.s.
State of Colorado }

The undersigned, MAUREEN KINNEY, after first being sworn upon (his/her) oath, states and agrees as follows:

1. I am of legal age and am currently suffering no infirmities which might affect my statement and agreement herein.
2. I am the legal owner of a certain parcel of real estate, known as (Street address) Williams Way, Aspen, Colorado, which property is located within the boundaries of the Smuggler Mountain Superfund Site as determined by the United States Environmental Protection Agency.
3. I have proposed to do certain excavation work upon the referenced property, which work I acknowledge is subject to Institutional Controls in the Superfund Site, as the excavated soils contain more than 1000 parts per million (ppm) of lead. I understand and agree that such excavated material shall be handled in conformance with the Record of Decision and Institutional Controls for the site.
4. I will direct my contractors or any persons working for me during this excavation and insure that all excavated materials containing lead in excess of 1000 ppm are transported to an approved repository site, where they will be subject to inventory and be deposited in accordance with repository regulation. It is currently estimated that this project will require the excavation of 2,300 cubic yards of materials, all of which materials actually excavated shall be accounted for in accordance with current regulations. At the conclusion of this project, I understand that I shall be required to confirm the proper accounting and handling of all such excavated materials before any final certificate of occupancy will be issued by the Building Official.
5. I understand that the falsification of this affidavit may subject me to criminal and civil penalties under local, State and Federal law, including response costs and penalties under CERCLA.

[Signature]
Owner



Subscribed and sworn to before me this 1 day of April, 2005.
Maureen Kinney

[Signature]
Notary Public

MY COMMISSION EXPIRES
09/24/2008

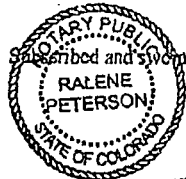
AFFIDAVIT

County of Pitkin }
 } s s
State of Colorado }

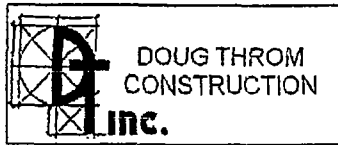
The undersigned, Maurice M. Kinning, after first being sworn upon (his/her) oath, states as follows:

1. I am currently of legal age and am suffering no infirmity which might affect my statement and agreement herein.
2. I am the legal owner of a certain parcel of real estate, known as (Street address) 2 Williams Way, Aspen, Colorado, which property is located within the the Smuggler Mountain Superfund Site as designated by the United States Environmental Protection Agency
3. Sampling data show that soil on my property contains lead levels greater than 4000 ppm. I am aware that this concentration of lead in my soil has caused EPA and the County to place certain restrictions, including Institutional Controls, on the movement and disposal of this contaminated soil. I certify that I have complied with those restrictions during the course of the construction project undertaken on my property. I confirm that 1400 cubic yards of excavated materials were removed from my property and were delivered to the Pitkin County Storage Depository located at the Pitkin County Landfill as required by my building permit.
4. All excavated materials were handled in accordance with the requirements of the Institutional Controls. Soils containing less than 1000 ppm lead were disposed of without restriction, as they are considered uncontaminated.
5. I understand that the falsification of this affidavit may subject me to civil and criminal penalties under local, State and Federal law, including response costs and penalties under CERCLA.

[Signature]
Owner



Subscribed and sworn to before me this 22 day of September 2005
Ralene Peterson
Notary Public



MINE WASTE LOG

S H Trust - 2 Williams Way

Note: All trucks = 10 cubic yard load

DATE	# LOADS	Daily Total	RUNNING TOTAL
04/21/05	10	100	100
04/26/05	16	160	260
04/27/05	6	60	320
04/28/05	2	20	340
04/29/05	15	150	490
05/06/05	14	140	630
05/13/05	17	170	800
05/14/05	15	150	950
05/15/05	3	30	980
05/16/05	8	80	1060
05/17/05	7	70	1130
05/21/05	14	140	1270
06/22/05	13	130	1400

TOTAL 1400 CY

Pitkin County Landfill
 505 East Main St.
 Aspen, Colorado 81611
 (970) 923-3487

STATEMENT

Printed 05/03/05
 DATE: 04/30/05 PAGE: 1

LARRY MARTIN CONSTRUCTION
 Larry
 P.O. BOX 982
 GLENWOOD SPRINGS CO 81602

AMOUNT DUE	AMOUNT PAID
1274.28	

ACCOUNT NO.
186

DETACH AND RETURN TOP PORTION WITH REMITTANCE

DATE	TICKET	VEHICLE	REFERENCE	DESCRIPTION	QUANTITY	AMOUNT
03/31/05				Balance Forward		239.4
04/06/05	01-182618		WILLIAMS M	Brush	10.00	120.0
04/14/05	01-183260		WILLIAMS W	INCRING DIRT FOR TS	10.00	23.2
04/14/05	01-183273		AS WILLIAM	CONSTRUCTION DEBRIS	10.00	213.2
04/14/05	01-183287		WILLIAMS	crush up to trash	10.00	53.2
04/15/05	02-127509		#8089	Payment		-239.4
04/18/05	01-183469		AS WILL WA	TRASH ASSORTED	10.00	213.2
04/18/05	01-183473		LN WR	TRASH ASSORTED	10.00	213.2
04/19/05	01-183625		TR CENTER	ASPHALT	10.00	53.2
04/19/05	01-183641		TOWN HALL	crusher material	8.00	42.5
04/20/05	01-183730		WILL WA AS	crusher material	3.00	15.9
04/20/05	01-183748		WILL WERS	TRASH ASSORTED	8.00	170.5
04/20/05	01-183760		WILL WAF	Brush	8.00	96.0
04/20/05	01-183778		WILLIAMSWY	Brush	5.00	60.0
04/21/05	01-183953		WILLS WY	SOIL/CONT. LEAD	50.00	0.0
04/21/05	01-183954		WILLS WY	SOIL/CONT. LEAD	50.00	0.0
04/26/05	01-184939		WILLWAY PA	SOIL/CONT. LEAD	80.00	0.0
04/26/05	01-184381		WILLWAY AD	SOIL/CONT. LEAD	80.00	0.0
04/27/05	01-184454		WILLS WAY	SOIL/CONT. LEAD	60.00	0.0
04/28/05	01-184629		WILLS WAY	SOIL/CONT. LEAD	20.00	0.0
04/29/05	01-184644		245 WILL WA	SOIL/CONT. LEAD	10.00	0.0
04/29/05	01-184685		WILL W AD	SOIL/CONT. LEAD	30.00	0.0
04/29/05	01-184711		WILLIAM WA	SOIL/CONT. LEAD	50.00	0.0
04/29/05	01-184712		WILL WAY M	SOIL/CONT. LEAD	60.00	0.0
Total balance due						1274.2
Total current charges						1274.2
4907 ²						

ACCOUNT NO.	1-30	31-60	61-90	OVER 90	AMOUNT DUE
186	1274.28	0.00	0.00	0.00	1274.28

Detach top portion and remit with payment by the 20th.
 Payments not received by due date subject to 2% per month finance charge.
 Make checks payable to Pitkin County Treasurer.

Accounts will be closed if any balance goes beyond 60 days past due, and must be paid in full before re-opening account.

Pitkin County Landfill
506 East Main St.
Aspen, Colorado 81611
(970) 923-3487

STATEMENT

Printed 07/01/05

DATE	PAGE
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LARRY MARTIN CONSTRUCTION
Larry
P.O. BOX 982
GLENWOOD SPRINGS CO 81602

*✓ 18267
2/6/05*

AMOUNT DUE	AMOUNT PAID
9219.12	

ACCOUNT NO.
86

DETACH AND RETURN TOP PORTION WITH REMITTANCE

DATE	TICKET	VEHICLE	REFERENCE	DESCRIPTION	QUANTITY	AMOUNT
05/31/05				Balance Forward		1,198.60
06/03/05	01-188718		AB WIL WAY	TRASH ASSORTED	50.00	866.00
06/03/05	01-188752		WILL HOGAN	TRASH ASSORTED	70.00	492.40
06/03/05	01-188775		WIL HA NER	TRASH ASSORTED	60.00	279.20
06/06/05	01-188840		T BOWL	crush up to trash	30.00	83.20
06/06/05	01-188852		T BOWL	crush up to trash	30.00	249.60
06/06/05	01-188868		T BOWL	crush up to trash	30.00	249.60
06/06/05	01-188889		TEML	crush up to trash	40.00	332.80
06/06/05	01-188890		TEML	crush up to trash	40.00	332.80
06/06/05	01-188891		TEML	crush up to trash	40.00	332.80
06/06/05	01-188892		TEML	crush up to trash	40.00	332.80
06/06/05	01-188893		TEML	crush up to trash	40.00	332.80
06/06/05	01-188894		TEML	crush up to trash	40.00	332.80
06/06/05	01-188895		TEML	crush up to trash	40.00	332.80
06/06/05	01-188911		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188916		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188917		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188927		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188928		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188936		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188939		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/06/05	01-188980		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
06/08/05	01-189265		AB BL DIA	Brush	7.00	84.00
06/08/05	01-189289		BL DIA A B	Brush	10.00	20.00
06/08/05	01-189321		BL D AB	Brush	8.00	96.00
06/08/05	01-189327		BL D	Brush	8.00	96.00
06/09/05	01-189507		AB B DIA	Brush	10.00	120.00
06/10/05	01-189605		B D A B	TRASH ASSORTED	10.00	13.20
06/10/05	01-189659		AB BD	TRASH ASSORTED	6.00	27.92
06/13/05	01-189774		WILLIAMS	SOIL/CONT. LEAD	30.00	0.00
						150.4
ACCOUNT NO.	1-30	31-60	61-90	OVER 90	AMOUNT DUE	

Detach top portion and remit with payment by the 20th.
Payments not received by due date subject to 2% per month finance charge.
Make checks payable to Pitkin County Treasurer.

Accounts will be closed if any balance goes beyond 60 days past due, and must be paid in full before re-opening account.

Pitkin County Landfill
 46 East Main St.
 Aspen, Colorado 81611
 (970) 923-3487

STATEMENT

Printed 07/01/05

DATE	PAGE
06/30/05	2

LARRY MARTIN CONSTRUCTION
 Larry
 P.O. BOX 982
 GLENWOOD SPRINGS CO 81602

AMOUNT DUE	AMOUNT PAID
9219.12	

ACCOUNT NO.
186

DETACH AND RETURN TOP PORTION WITH REMITTANCE

DATE	TICKET	VEHICLE	REFERENCE	DESCRIPTION	QUANTITY	AMOUNT
06/13/05	01-189896		2 WILLSWAY	SOIL/CONT. LEAD	80.00	0.00
06/13/05	01-189899		2 WILLSWAY	SOIL/CONT. LEAD	80.00	0.00
06/14/05	01-190038		2 WILLSWAY	SOIL/CONT. LEAD	80.00	0.00
06/14/05	01-190053		2 WILLSWAY	SOIL/CONT. LEAD	70.00	0.00
06/14/05	01-190054		2 WILLSWAY	SOIL/CONT. LEAD	30.00	0.00
06/14/05	01-190071		2 WIL LINDA	SOIL/CONT. LEAD	10.00	0.00
06/15/05	01-150097		WILLIAMS	SOIL/CONT. LEAD	10.00	0.00
06/15/05	01-190120		WILL WAYNE	SOIL/CONT. LEAD	10.00	0.00
06/15/05	01-190133		WILL WAY M	SOIL/CONT. LEAD	10.00	0.00
06/16/05	01-190219		WILL WAY	SOIL/CONT. LEAD	10.00	0.00
06/16/05	01-190336		2 WIL WAY	SOIL/CONT. LEAD	70.00	0.00
06/17/05	01-190498		X PTL BL CIR	TRASH ASSORTED	60.00	279.20
06/17/05	01-190512		2 WIL W	SOIL/CONT. LEAD	50.00	0.00
06/17/05	01-190513		AB 2 WIL	SOIL/CONT. LEAD	20.00	0.00
06/20/05	02-127968		18226	Payment		-1,190.60
06/21/05	01-190766		MT N WI MA	SOIL/CONT. LEAD	60.00	0.00
06/21/05	01-190767		WV GUSCHA	SOIL/CONT. LEAD	50.00	0.00
06/21/05	01-190771		2 W WA NYE	SOIL/CONT. LEAD	30.00	0.00
06/22/05	01-190911		WILLS WAY	SOIL/CONT. LEAD	60.00	0.00
06/22/05	01-190919		WILLS WAY	SOIL/CONT. LEAD	60.00	0.00
06/22/05	01-190922		WILL WAYS	SOIL/CONT. LEAD	10.00	0.00
06/23/05	01-190960		X BLACKDIAM	Brush	10.00	20.00
06/23/05	01-190978		X BLACKDIAM	TRASH ASSORTED	10.00	113.20
Total balance due					270	1,191.20
Total current charges						1,191.20

ACCOUNT NO.	1-30	31-60	61-90	OVER 90	AMOUNT DUE
186	9219.12	0.00	0.00	0.00	9219.12

Detach top portion and remit with payment by the 20th.
 Payments not received by due date subject to 2% per month finance charge.
 Make checks payable to Pitkin County Treasurer.

Accounts will be closed if any balance goes beyond 60 days past due, and must be paid in full before re-opening account.

APPENDIX B3

SMUGGLER MOUNTAIN SUPERFUND SITE SOIL REMOVAL PERMIT

Building Permit Number: 0115 2006

No person shall undertake or conduct any development or other activities within the Smuggler Mountain Superfund Site (Site) involving the excavation or exposure of more than one (1) cubic yard of soil without first obtaining a permit from the City of Aspen Environmental Health Department or Pitkin County Environmental Health and Natural Resources Department. Development or other activities involving excavation of less than one (1) cubic yard of soil do not require a permit, but must still comply with the Institutional Controls adopted by the City of Aspen and Pitkin County.

Contaminated soils and other contaminated materials from the Site may only be taken to the Pitkin County Landfill or another duly licensed and authorized receiving facility for disposal. VEHICLES HAULING CONTAMINATED SOIL AND OTHER CONTAMINATED MATERIAL MUST COVER THE SOIL/MATERIAL TO EFFECTIVELY PREVENT IT FROM BLOWING OUT OF THE VEHICLE AND MUST OBTAIN ANY NECESSARY STATE AND/OR FEDERAL TRANSPORTATION AND DISPOSAL PERMITS.

Property address: 223 COTTONWOOD LANE

Parcel ID: 223707490223

Name of property owner(s): ANN RICKEN BAUGH

Mailing address(es): 223 COTTONWOOD LN. ASPEN

Phone number(s): 925-8317

Name of applicant: MARK HESSERLEHNER / BUCKAROO BUILDERS

Relation to property owner(s): CONTRACTOR

Applicant's address: 225 COTTONWOOD LANE ASPEN

Applicant's phone number: 948-8444

Describe activity that will take place: DIG FOR NEW BASEMENT.

RECEIVED

Depth of excavation: 9.5' SEP 08 2006

Surface area disturbed (sq. ft): 1500 PITKIN COUNTY ENVIRONMENTAL HEALTH & NATURAL RESOURCES

Cubic yards of material to be excavated: 1000

Cubic yards of excavated material to be retained on site: 0

Cubic yards of material to be disposed of off site: TOTAL

Location where material will be disposed:

Contaminated material: LAND FILL

Uncontaminated material: 0

How long will excavated material be exposed on surface? 0

How will applicant identify and segregate clean fill material from contaminated fill material (soil with lead content of $\geq 1,000$ ppm) during the excavation or development period?

ALL CONTAMINATED

How does applicant plan to backfill, cover, and revegetate contaminated soil or other contaminated material left on-site?

0

Applicant agrees to comply with the Institutional Controls adopted by Pitkin County and the City of Aspen:

Signature of Applicant or Applicant's Authorized Representative:

Date: 9-7- 2006

Mark Hesselschweig
PRES. - BLUE MOUNTAIN ROCKWORKS INC

OFFICIAL APPROVAL/DENIAL AND ADDITIONAL CONDITIONS

City of Aspen Environmental Health Director/Pitkin County Environmental Resources Manager (as appropriate and acting as designee of the City of Aspen/Pitkin County Chief Building Official):

Approved: SEC Denied: _____

Signature: Lee Casarin


Date: 9-7-06, 20____

Additional Conditions (if any): Must comply with Institutional Controls.

AFFIDAVIT 1

The undersigned, Mark C. Hesse
(print name), states and agrees as follows:

1. I am the legal owner/one of the legal owners/an authorized representative of the legal owner(s) of a certain parcel of real estate, known as (street address) 223 CUTTONWOOD LANE, Aspen, Colorado 81610, which property is located within the Smuggler Mountain Superfund Site (Site), as designated by the U. S. Environmental Protection Agency (EPA).
2. I have proposed to do certain excavation work upon the referenced property, which work I acknowledge is subject to Institutional Controls on the Site, as the excavated soils contain \geq 1,000 parts per million (ppm) of lead. I understand and agree that such excavated material shall be handled in conformance with the EPA's Record of Decision and the Institutional Controls adopted by the City of Aspen/Pitkin County for the Site.
3. I will direct my contractors and any other persons working for me during this excavation and ensure that all excavated materials containing \geq 1,000 ppm of lead are transported to an approved repository site (e.g., the Pitkin County Landfill), where they will be subject to inventory and be deposited in accordance with repository regulations. It is currently estimated that this project will require the excavation of 1000 cubic yards of materials, all of which materials actually excavated shall be accounted for in accordance with current regulations. At the conclusion of my project, I understand that I shall be required to confirm the proper accounting and handling of all such excavated materials before my final Certificate of Occupancy will be issued by the Chief Building Official for the City of Aspen/Pitkin County.
4. I understand that the falsification of information contained in this affidavit may subject me to civil and criminal penalties under local, state and federal law, including response costs and penalties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980.


Signature of Owner or Owner's(s) Authorized Representative
(in the case of a corporation, LLC, trust, etc.) Back Mountain Buckaroo Pinc. DRB
Buckaroo Builders.
Date: 9-7-06, 20 06