



**US Army Corps
of Engineers®**

Huntington District

Formerly Used Defense Sites Newsletter

Summer 2006 Edition



WVOW Pond 13 / Wet Well Area Gets New Groundwater Extraction Wells

The two (2) new groundwater extraction wells that have been installed at West Virginia Ordnance Works (WVOW) Pond 13/Wet Well Area to extract and treat a nitroaromatic-contaminated groundwater plume have been operating successfully since mid-December 2005. These wells replaced existing extraction wells 401A and 401B, which had been ineffective in reducing the plume size, and had not been in operation since July 1997. The groundwater at the Pond 13/Wet Well Area had become contaminated from operation of the wastewater pumping station that existed at the site during TNT manufacturing for World War II.

The WVOW Tier I team had decided in March 2001 to remove nitroaromatic-contaminated soil that was found at the Pond 13/Wet Well Area and then monitor the groundwater at the site for five years. After further investigation and groundwater modeling studies, it was determined that a contaminated groundwater plume existed at the area which threatened Pond 13.

Studies showed that two groundwater extraction wells should be installed in the soil removal area to reverse the groundwater flow away from Pond 13, as well as to extract and treat the nitroaromatic-contaminated groundwater plume.



View of Two New Extraction Wells at Pond 13

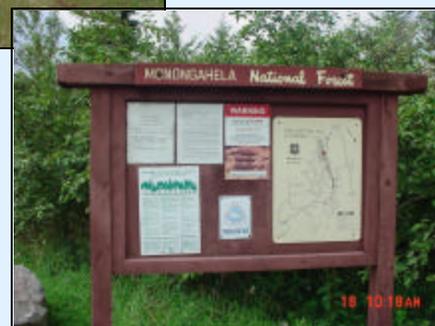
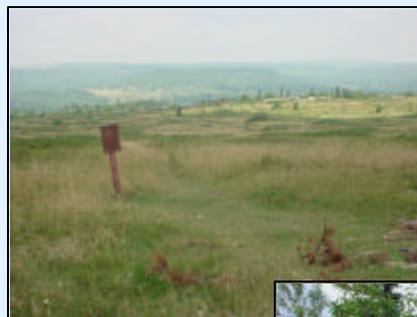
Consistently high levels of nitroaromatics were detected immediately in groundwater samples analyzed from the extraction wells in February 2006, thus proving that the wells had been properly located. Water level mapping is currently being prepared by Potesta and Associates, Inc., to evaluate the well's effectiveness at reversing the groundwater flow away from Pond 13.

WVMA Team To Prepare Preliminary Assessment in 2007

The West Virginia Maneuver Area (WVMA) team will begin preparation of a CERCLA Preliminary Assessment (PA) starting in Fiscal Year 2007. The intention of the PA is to obtain existing information about the site and its surrounding area, with an emphasis on obtaining comprehensive information on targets, namely people and resources that might be threatened by a release from the site. The scope of a PA generally includes the following:

- Review all obtainable information about the site.
- Conduct site and environmental reconnaissance at the site.
- Collect additional information about the site. This information can be collected through various means including interviews with individuals familiar with the site, historical records research, and other historical references.
- Evaluate all information obtained and develop a site score.
- Prepare a site summary report and site characteristics form.

The data and conclusions presented by the PA are the foundation of all future DERP-FUDS activity at the WVMA. The PA is a critical stage in the site assessment process; sites must be accurately characterized because incorrect site recommendations could waste precious resources or even endanger human health and the environment.



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TNT Area B Remedial Activities Resume at PBOW

TNT Area B at the former Plum Brook Ordnance Works (PBOW) is back on the front burner in U.S. Army Corps of Engineers' (USACE) Huntington District. In 2003, remediation activities in TNT Area B were in full swing with excavations to remove contaminated soil, soil composting and backfilling the excavations with clean soil. LRH successfully composted the contaminated soil excavated from TNT B and disposed of the material at Erie County Landfill in early 2004. Once the composting project was completed and excavations were backfilled funding was depleted and work at the PBOW site was suspended. In the fall of 2005, funding became available and earmarked for TNT B remediation activities to continue.

The 2003 scope of activities in TNT B identified 13 areas to be remediated. The specific areas were limited to small excavations, for example some excavation areas or "hot spots" were as small as 10'x10'x10'. When field activities were in full swing, it became apparent the amount of soil requiring remediation would far exceed the estimates. With excavated, contaminated soil increasing and project funding depleting rapidly, USACE Project Technical Coordinator Lisa Humphreys proposed to cease excavations as required in the work plan. Ms. Humphreys worked with the remediation contractor, WTI to develop a strategy to determine the extent of subsurface horizontal contamination by using the available funds.

The PBOW site is unique in that the contamination is "localized" in the subsurface environment with no consistent distribution pattern. Within a specific area, there may be 2-3 "hot spots", and the remainder of the area is not contaminated. Complete excavation of a specific area is not necessary and could be cost prohibitive. Realistically, conditions at PBOW do not require total excavations, but excavation is limited to removal of the hot spots. As was found in 2003, some hot spots had migrated beyond the targeted excavation area in different directions and irregular patterns.

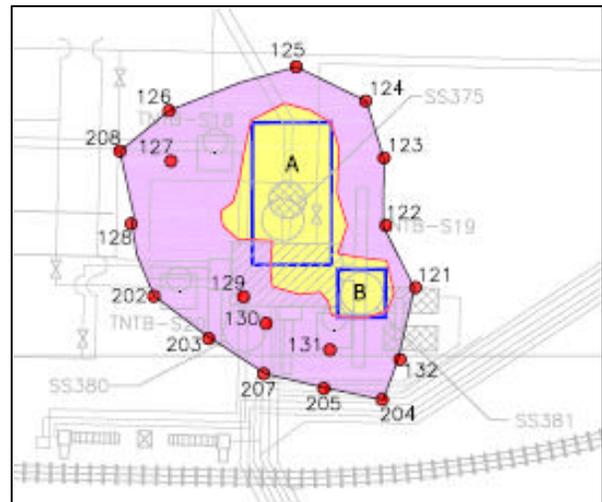
The strategy to determine the extent of subsurface horizontal contamination included digging test pits equal distances outside the perimeter of the initial excavation until clean soil was found (based on confirmation testing). For example, an initial excavation may measure 10'x10'x10' and confirmation testing of three of the walls and the floor indicate there is no contamination present. Based on the test results, an assumption is made that the source of the contamination has been removed, but the migration of the contamination, which is evident on the fourth wall, must be tracked in that direction and removed.

Testing on the fourth wall indicates contamination is still present in the soil, thus the search for "clean soil" is on. A test pit is excavated 10' out from the fourth wall to a depth of 10' (the same depth as the initial excavation). Confirmation samples are collected from the walls of the test pit, and the results indicate there is no contamination present. Test pits allowed the quality of the subsurface soil to be evaluated before complete excavation was initiated. In some cases at TNT Area B, additional test pits had to be excavated (at 20' and 30' from the initial excavation) in order to find the boundary of the contamination. Based on the test results, the excavation will now in-

clude the area of the initial excavation plus the additional material from the fourth wall to the test pit.

Defining the extent of contamination in such irregular distribution is difficult and costly. In defining the extent of the subsurface contamination prior to excavating the soil, a cost savings may be realized. Instead of excavating to a specific volume of soil, "chasing" seams of contamination, and sampling at regular intervals increases laboratory costs. Using the alternative method of excavating test pits, USACE was able to reduce the number of samples collected and analyzed, resulting in a cost savings on the project. In addition, the alternative excavation may have reduced the volume of soil to be excavated and disposed, hence reducing the volume of backfill material and disposal costs.

Five areas are scheduled to be excavated. An example excavation schematic for Building 452 area is presented below. Note areas of the initial excavation are indicated by the blue line. The actual excavation completed in 2003-2004 is the area highlighted in yellow, and the area planned for excavation is highlighted in purple. Excavation is planned for mid to late 2006.



Example schematic of excavation plans - Building 452 - yellow area was excavated in 2003-2004, purple area shows the extent of 2006 planned excavation



View of TNT Area B

Operable Unit 4 Groundwater Treatment Facility Increases Pumping Capacity

The OU-4 groundwater extraction and treatment facility is nearing its 10th anniversary. The facility was constructed from 1995 – 1997, and first went into operation in February 1997. The system initially operated for six months under a trial discharge to Mill Run; however, due to recurring violations of water quality discharge criteria, the plant was directed to shutdown by the WV Department of Environmental Protection (WVDEP). Following the shutdown, the Corps evaluated various treatment options and determined that wetlands treatment of the effluent discharge was a viable option. The Corps petitioned the WVDEP and received approval of wetlands trial discharge in August 1999.

The treatment system was brought back into operation in September 2000 and has operated since that time without interruption or violation of discharge criteria. Close to 10 million gallons a month of nitroaromatic-contaminated groundwater is extracted, treated, and discharged from the Red and Yellow Water treatment facilities. Recently, at the request of the EPA, the WVDEP conducted a study of the sediment in the Sedimentation Basin (wetlands discharge for the Red Water treatment system) to determine if the discharge has caused the accumulation of metals in the sediment which could be detrimental to wildlife. An evaluation of the sampling results showed that metals have not accumulated in the sediment to any appreciable level and continued discharge to the wetland was recommended. Just one visit to this area will prove the benefit of the effluent discharge. The effluent discharge helps to maintain an approximate 5-acre pool in the basin, which is frequently used by waterfowl and most recently, a beaver which had to be trapped and removed by the WVDNR because his dam had plugged the basin's outlet structure!!



Camera Being Lowered into Extraction Well for Down-Well Camera Inspection

Major rehabilitation work was performed from July – October 2005 on all nine groundwater extraction wells. The wells had never been diagnosed or rehabilitated since initial installation in 1996. Marshall Miller and Associates was sub-contracted by WTI (the OU-4 operations and maintenance contractor) to perform down-well camera inspection of the extraction wells. The inspection provided valuable construction information regarding the elevations of screens, transducers (water level

control sensors), pump inlet, and sump elevations. The inspection found that in many instances, the water level control sensors were not at their optimum level (some cases, they were 5 feet too high) to provide maximum drawdown of the aquifers and increase capture of the contaminated groundwater plumes. A video was made of all the inspections and provided to the Corps on DVD for future reference.

Following the inspection, the transducers were lowered to within a foot of the pump inlet to optimize drawdown and all extraction wells were re-developed per USACE guidance. Once started back up, most of the extraction wells were observed to have increased in pumping capacity by 20%. Additional rehabilitation work involved replacement of control panels, effluent discharge lines, cleanouts, and other mechanical equipment which has essentially reached its useful life.

Due to the recent success of the pilot study at the Southeast TNT Manufacturing area involving in-situ treatment of contaminated groundwater, the WV Ordnance Works Tier I team has decided to evaluate the use of this technology at OU-4. The in-situ treatment proved that it could reduce the levels of nitroaromatics in the groundwater. If such treatment could be successful at OU-4, the treatment plants could either be shutdown, or their operational life greatly reduced, due to reductions of nitroaromatic levels. The OU-4 facility was estimated to require operation of at least 20 years for some of the contaminated groundwater plumes. Any reduction in cleanup time could result in nearly \$300,000 in annual cost savings for system operation and maintenance.



View Inside Van During Well Inspection Showing Video Screen for Monitoring Progress

To get more information on restoration activities at WVOW or other FUDS sites, call the FUDS information hotline at:

1-800-822-8413

OR

Visit the FUDS website at:

www.lrh.usace.army.mil/projects/current/derp-fuds

Ordnance Finding Leads to Revision of Inventory Project Report

In August 2004, an ordnance round was found on Canaan Valley Institute property and was detonated in place by state police responders. The responders classified the approximate 30-inch long ordnance as a rocket.

The ordnance was located beyond the former leased impact area boundary that had previously been identified by the Corps in the 1995 Archives Search Report (ASR). Research for the 1995 ASR focused on the Dolly Sods North Area due to the high public visitation and periodic ordnance finds by site visitors. The leased impact area is now referred to as the Dolly Sods Region, consisting of the Dolly Sods North, Dolly Sods Wilderness, and the Dolly Sods Scenic Area. The ASR led to the recommendation of an Engineering Evaluation/Cost Analysis (EE/CA), a Remedial Investigation/Feasibility Study (RI/FS) and subsequently, ordnance removal actions in the Region between 1997 and 1998.

Research conducted by the St. Louis District Corps of Engineers (CEMVS-ED-P) in 2004 also indicates that several target/impact areas may exist beyond those which have been previously identified within the Dolly Sods Region.

Due to the recent ordnance find, and the research of the St. Louis District, the Huntington District has revised the Inventory Project Report (INPR) for the WV Maneuver Area/Dolly Sods to recommend a Site Investigation (SI) project. The INPR is the mechanism with which to propose and approve projects for FUDS properties. Following SI approval, the Corps will conduct historical research to determine if this finding was in a previously unidentified impact area, thus requiring additional investigation (EE/CA, RI/FS, potential removal).



Field official inspects "rocket" ordnance



View of 30-inch long ordnance

WVMA Public awareness Campaign Garners Four Awards

The West Virginia Maneuver Area (WVMA) educational and community relations campaign developed by the U.S. Army Corps of Engineers, Huntington District and S&C Advertising and Public Relations (San Antonio, TX) continues to gain national recognition, as they were awarded four prestigious awards in 2006. The WVMA Team was honored with two 2006 Proliner Awards and two 2006 Telly Awards.

The Proliner Awards are a national awards competition presented by the San Antonio Chapter of the Association for Women in Communications. The Proliner Awards annually recognize outstanding professional achievement in the field of communications. The WVMA project was awarded The Association of Women in Communications Award of Excellence for their Community Relations Campaign "Enjoying Dolly Sods Community Relations". The WVMA project was also awarded the Association of Women in Communications Award of Excellence for the Dolly Sods Area Map and Unexploded Ordnance (UXO) Training Guide.

In 2006, the WVMA Team received a 27th Annual Silver Telly Award in the Video Created for the Web Category for the video produced for educating the public about the potential hazards associated with unexploded ordnance in the WVMA. The WVMA Team also received a Bronze Telly in the Government Category for the same safety video. The Telly Awards are an international award that honors outstanding local, regional and cable television commercials and programs, as well as the finest video and film productions. The Telly Awards annually showcase the best work of the most respected advertising agencies, production companies, television stations, cable operators, and corporate video departments in the world.

The WVMA project's award-winning video and other educational materials developed through the project team's public awareness program can be viewed online at:

www.lrh.usace.army.mil/projects/current/derp-fuds/wvma

New Groundwater Monitoring Wells Installed for OU-4 System

The installation of ten new groundwater wells was completed in March 2006 at the Red and Yellow Water Reservoir areas and Pond 13. Potesta and Associates, Inc., who are under contract with the Huntington District to perform evaluation of the effectiveness of the OU-4 groundwater treatment system, had recommended the ten wells to close data gaps in the OU-4 monitoring well network. The installation of these wells increases the number of new monitoring wells that have been installed over the past two years for the OU-4 system to twenty-two. Twelve wells were initially installed throughout the Red and Yellow Water areas in August-September 2004. Those wells were recommended by the Corps's HTRW Center of Expertise in their Remediation System Evaluation report, Jan. 2004, to better define the OU-4 groundwater capture zone.

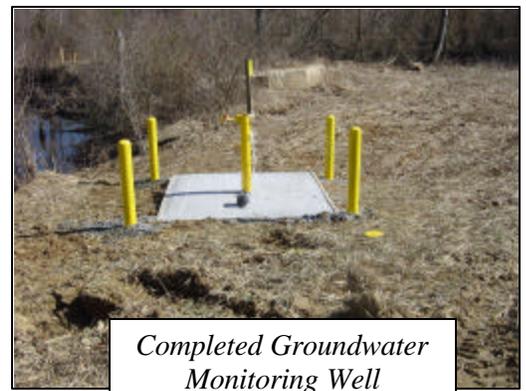
Following the installation of the initial 12 wells, Potesta prepared a groundwater model for the OU-4 system and evaluated initial data from the new wells. They determined that capture of the contaminated groundwater was not well defined in the deep water bearing zone at the Yellow Water Reservoir area and that wells were also needed down gradient (down flow direction) of the extraction wells at the Red Water Reservoir Area. Additionally, new monitoring wells were recommended for the two new extraction wells that were being installed at Pond 13 to evaluate their effectiveness. From their evaluation, Potesta recommended that three wells at the RWR area, four wells at the YWR area, and three wells at Pond 13 would be required to close data gaps that still existed in the groundwater monitoring network. The initial evaluation of data that has been taken from the Spring of 2006 sampling round shows that capture is now defined at the RWR area, with evaluation of the YWR and Pond 13 area forthcoming.

Once the evaluation has been completed, the Corps hopes the information proves that the groundwater plumes are effectively being captured so that a report can be prepared to help with the transfer of the former PDP property to Mason County as an economic incubator.

Groundwater extraction wells 401A and 401B near Pond 13, which were initially installed in 1996, were also abandoned during this work since they had been recently replaced with two new extraction wells at the Wet Well Area.



Installation of New Groundwater Monitoring Well



Completed Groundwater Monitoring Well

Huntington District Corps Continues Presentations on WVOW

During the past year, presentations on the Corps' efforts have been presented at a conference and to a professional organization. On February 1, Mr. Rick Meadows, Project Manager, and Mr. Ken Woodard, Environmental Engineer, provided a presentation titled "WV Ordnance Works: Hazardous, Toxic and Radioactive Waste Initiatives" at the Army Environmental Cleanup Workshop in San Antonio, TX. The focus of the conference was on achieving results in accordance with current defense goals and the objectives of the Army Environmental Cleanup Strategy, while it also offered a forum for program information sharing, team building, and personal interaction. Conference attendees included Army personnel from all levels involved with the environmental management of active and former Army sites around the world. The WVOW presentation included information on recent accom-

plishments such as the composting pilot project, the groundwater extraction and treatment system, public involvement, the Explanation of Significant Differences to the OU-2 Record of Decision, the ESI-6 Motorpool/Maintenance Area, the long-term monitoring program, and the most recent Five-Year Review.

On May 16, Mr. Woodard made a presentation at a meeting of the American Society of Civil Engineers, West Virginia Section, Huntington and Charleston Branches. This presentation was titled "Cleaning Up the Mothman's Home" and was given in Barboursville, WV. In the presentation, Mr. Woodard discussed the history of the TNT plant and its ongoing cleanup by the Corps.

WVMA Team Members Assist Other Agencies

Members of the U.S. Army Corps of Engineers (USACE) West Virginia Maneuver Area (WVMA) Team assisted the U.S. Forest Service (USFS) and the Nature Conservancy (TNC) with various activities around the WVMA. These activities included recommendations, guidance and investigations of areas within the WVMA.

In the summer of 2005, USACE WVMA team members were approached by TNC to provide recommendations concerning firebreak restoration activities, which TNC had proposed to implement during the summer of 2005 at Bear Rocks Preserve, West Virginia. The activity was developed to control erosion and re-establish habitat along a fire perimeter ring developed through earth and brush removal during a recent fire fighting effort. During the support effort, Erich Guy (USACE, Huntington District) and John Younghans (USACE, Huntsville CX) conducted a visual and equipment- (magnetometer) assisted survey with no surface ordnance-related material or sub-surface anomalies discovered. A letter of recommendation was developed documenting the findings of this site investigation. The letter recommended that due to the fact that the probability of finding military munitions is low in the areas that are under consideration for ecosystem re-development and follow already established procedures in the event that unexploded ordnance (UXO) is encountered.

Also in the summer of 2005, USACE WVMA team members were approached by the USFS in regards to the effort to re-align one of the existing trails in the Dolly Sods North Area that had previously been cleared of UXO in 1997. The Raven Ridge Trail was previously located on both USFS land, as well as privately owned property. The proposed activity will re-route the Raven Ridge Trail, so that it runs exclusively on USFS property. During the support effort for this activity,

Erich Guy (USACE, Huntington District) and John Younghans (USACE, Huntsville CX) conducted a visual and equipment- (magnetometer) assisted survey with a few surface and sub-surface anomalies discovered. Given mapped locations of previously found ordnance, it is unlikely these anomalies are ordnance or explosives, but USACE will perform a UXO clearance on the new trail prior to it being officially designated.



USACE personnel conducting magnetometer readings on proposed Raven Ridge Trail relocation area



Fire Ring on Nature Conservancy property

WVMA Team Members Presentations

U.S. Army Corps of Engineers (USACE) West Virginia Maneuver Area (WVMA) Team members Erich Guy and Rick Meadows presented the Dolly Sods Community Safety and Awareness Campaign to two separate groups over the first half of 2006. On February 1, the WVMA project was one of twenty FUDS projects selected to give a presentation at the Army Environmental Cleanup Workshop in San Antonio, TX. This workshop is designed to promote achievement of results in accordance with current defense goals and the objectives of the Army Environmental Cleanup Strategy. This conference also offered an arena to promote project accomplishments, sharing techniques and ideas, team building, and interaction between various Army agencies. The WVMA presentation included information concerning the history of the project area, the clearing of the heavily used trails located on the project area, and the development and implementation of the public safety and awareness campaign.

In March, Dr. Guy conducted a presentation at a meeting of the Engineer's Club of Huntington's monthly dinner, as well as the West Virginia Native Plant Society at Marshall University. The title of both presentations was "Ordnance-Related Risk Management in the Dolly Sods Region, WV". These presentations focused on the history of the WVMA project area, recent Dolly Sods Region actions, the public awareness program, and implementation of project goals and objectives.



Photo of presentation presented to Engineer's Club of Huntington, March 2006

Treatability Study Conducted on Soils from Reservoir 2 Burn Grounds

During the early 1940's, the boom days of Plum Brook Ordnance Works (PBOW), waste material from the production of explosive products was burned with other waste materials generated from various activities around the facility, perhaps wood products or paper from administrative activities. The majority of burn activities took place at Reservoir No. 2 Burn Grounds (2BG), located at the corner of Ransom Road and Fox Road. In the early to mid-70's, NASA excavated this same area and built a ball field and picnic shelter on the approximately 2-acre site. NASA employees had picnics and played softball on sunny afternoons. The third-base line pole is still intact as is the picnic shelter. Today, 2BG is a beautiful, remote area covered in grass and surrounded by tall trees.

In June 2004 U.S. Army Corps of Engineers (USACE) conducted a site investigation on the 2-acre site to determine if the soil had been impacted by the burning of waste material from explosive manufacturing activities at PBOW. USACE investigators were able to locate the layers of burn material that had been covered over by excavations in the 1970's, using historical photographs and a backhoe for trenching the soil to varying depths. Subsurface soil samples were collected during the trenching and surface soil samples were collected throughout the 2BG area. The results of the soil sampling and analysis indicated there were significant concentrations of contaminants as a result of the PBOW activities conducted during WWII times and during the shutdown of PBOW. The contaminants evaluated were trinitrotoluene (TNT), dinitrotoluene (DNT), polychlorinated biphenyls (PCB) and benzo(a)pyrene. The results of the laboratory analysis were compared with the EPA Region 9 Preliminary Remediation Goals (PRGs). The results are presented in the following table.

As indicated in the table below, TNT was present in the burn layer (subsurface soil) at locations 1 and 2, and DNT was present in the burn layer (subsurface soil) at location 1. However, PCBs were detected in all of the samples.

The next question was, "What is our best option for remedial actions at this site?" The usual response to such a question is the tried and true technologies, composting or site-wide excavation and off-site disposal. In the remediation of a site, USACE evaluates the total package; all factors are focused on meeting the remedial goals (contaminant levels). Economics is a weighty factor as well as the feasibility of implementing

the selected technology. In the case of 2BG, the goal was to remediate the soil to acceptable levels of contaminants, or acceptable levels of risk. The acceptable level of risk at 2BG was residential levels. Should the property owner, NASA, decide to sell the property, the property would have no land-use restrictions, and could be used as a residential development with the most conservative level of risk.

In December 2005, on a cold and gray, northern Ohio day, USACE contractors descended onto the Reservoir No. 2 Burn Ground to collect soil samples for a treatability study. Soil samples were collected from 4 locations; locations 1 and 2 each consisted of one surface soil and one subsurface soil sample; locations 3 and 4 each consisted of a surface soil sample from the "PCB hot-zone" just west of the known burn area. The sample containers were labeled and secured for transport to the staging area where the containers were sealed and wrapped for overnight shipment to the United States Army Engineer Research & Development Center to evaluate chemical treatment as a means for treating the various soil contaminants.

The experiment began with the development of a "treatment train". The treatment train, shown on page 8, outlines the steps of the treatment process. Once in the laboratory the 5-gallons buckets of soil had to be processed. The soils were ground into fines and grassy particles were removed. Once the solids were processed or thoroughly crushed and mixed, processing the samples to determine the contaminant concentration could begin. In the following photos are some of the laboratory equipment used to prepare the samples for subsequent analysis:

Dosing the soil with lime or lime persulfate using different "recipes" or proportions of chemical mixtures was performed following different scenarios and making adjustments to the time, temperature, chemical dosage or other component of the trial. Results indicated a significant reduction in the contaminant concentrations following the lime treatment.

There were several other factors, or treatment scenarios evaluated during the treatability study, each focusing on reducing the contaminant levels, and providing acceptable disposal alternatives. Based on the experiments conducted during the evaluation, a few of the conclusions are as follows:

Measurements of Organic Compounds in Untreated Soils				
Sample	TNT (mg kg ⁻¹)	DNT (mg kg ⁻¹)	PCB (mg kg ⁻¹)	Benzo(a)pyrene* (µg/kg)
Surface 1	3.71 ± 29.2%	4.51 ± 146%	9.98 ± 17.5%	8.5 ± 25%
Surface 2	5.61 ± 86.0%	0.00 ± 0%	3.65 ± 6.8%	--
West 1	6.48 ± 40.3%	2.62 ± 223%	2.87 ± 21.7%	11.3 ± 39.6%
West 2	14.85 ± 8.6%	8.35 ± 170%	2.33 ± 6.0%	--
Burn 1	1548 ± 5.4%	243 ± 75%	22.6 ± 21.0%	44.4 ± 5.7%
Burn 2	237.8 ± 15.4%	26.6 ± 223%	1.32 ± 24.1%	--

Bold numbers indicate contaminant concentrations above Region 9 PRG

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Treatability Study Conducted on Soils From Reservoir 2 Burn Grounds - continued

- The treatments (lime, persulfate, and lime/persulfate) are all capable of reducing the TNT levels.
- Removal of DNT was not as effective as TNT. However, the removal was sufficient to meet industrial PRG, even for the burn layer, and often the residential level as well.
- All the treatments were effective of >80% reduction of PCBs. However, no treatment was able to meet the industrial PRG for the samples tested.
- Overall, the lime and persulfate treatment did not appear to substantially affect the lead concentrations in the soils.



Soil processing in lab - soil mixers resemble cement mixers

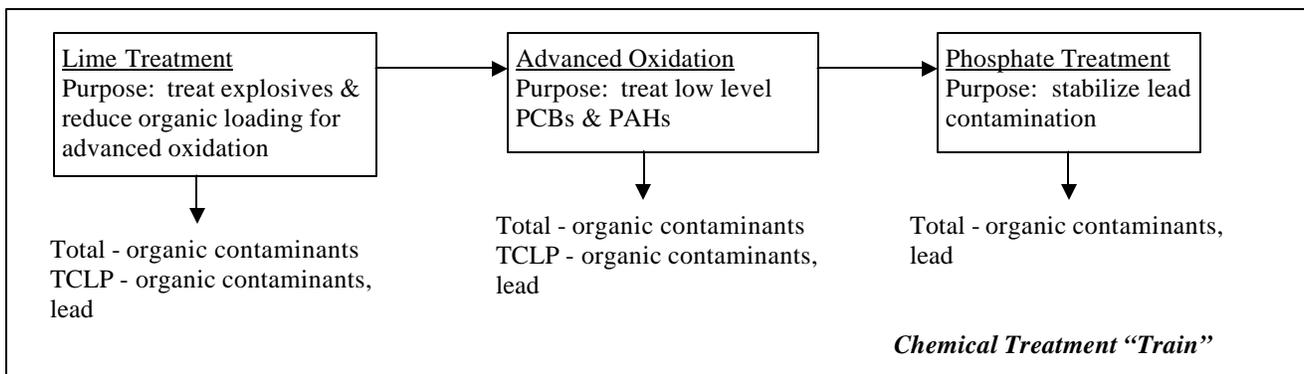
There are no plans to initiate a lime treatment process at 2BG in the near future due to funding constraints. However, USACE is confident there is at least one alternative treatment to reduce contaminants of the soil at 2BG or perhaps other areas of concern at the PBOW site.



Solvent extractor for PCB's and PAHs

Additional information on this treatability study may be found in the report "Reservoir No. 2 Burn Ground Engineering Evaluation and Cost Analysis" prepared by Jacobs Engineering at the following website:

www.lrh.usace.army.mil/projects/current/derp-fuds/pbow.



Huntington District Assists Louisville District on FUDS Program

The expertise of Huntington District of the Corps in the FUDS program has been recognized by its sister District, Louisville. Louisville District has a large FUDS program, and requested assistance in preparing Inventory Project Reports (INPRs) for sites in Ohio, Kentucky, Michigan, Illinois, and Indiana. Huntington District is partnering with Nashville District in preparing INPRs for over 40 sites. They were selected by the Louisville District over several other Districts after submitting a competitive proposal.

This work is being performed by trained Huntington District environmental professionals who are very familiar with the FUDS program and its associated environmental issues. INPR preparation involves visits to the National Archives, research of historical documents, visits to the sites, and documentation of projects recommended for future investigation.



Former 30,000-gallon heating oil tank, Willow Run Airport, MI



Former ordnance magazine, Ft. Custer, MI



Concrete bunker, Willow Run Airport, MI - was filled with sand to test firing of machine guns