

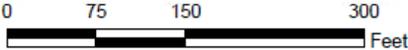


Truck Wash Area Sampling Results

RAB Meeting

March 13, 2012

Truck Wash Area



Camp Garcia
Vieques, Puerto Rico

Sampling of Vehicle Wash Residue



Background:

- In 2008, public expressed concern that washing project vehicles in the community could be spreading contamination from the site
- Navy proposed to collect residue from project vehicles to assess if vehicle wash residue pose a potential environmental impact

Scope:

- During February 2009 a 20 ft x 40 ft wash area was constructed at Camp Garcia to wash vehicles that retained a significant amount of residue from the work areas
- Mud/dirt from washed vehicles was collected and placed into 55 gallon drums
- Samples of the residue were collected in July, 2009 and April, 2010
- Samples were analyzed for explosives and metals



Key Definitions



- **Vehicle Wash Residue**: Soil/dust generated from washing the trucks that were used during the ongoing munitions removal program at the former Vieques Naval Training Range (VNTR).
- **Background Soils Concentration**: The range in metals constituent concentrations detected in soils that are representative of a wide-ranging metals concentrations resulting from naturally occurring conditions and/or broad-based sources unrelated to the environmental sites.
- **Residential RSLs**: Soils screening levels that may warrant further investigation based on EPA's Regional Screening Levels (RSLs) for human health risks based on residential land use.

Comparison of Metal Concentrations in Vehicle Wash Residue with Background Soil Concentrations and Residential RSLs



	Residential RSL	Background Soil Concentration	Residual Sample 7/15/2009	Residual Sample 4/15/2010
Aluminum	77,000	35,000	19,500	14,000
Antimony	31	NA	ND	1.1
Arsenic	3.9	1-6- 9.2	3.2	3.5
Barium	15,000	212	99.4	123
Beryllium	160.00	0.27-0.95	0.26	ND
Cadmium	70	2.2-2.4	1.3	2.2
Calcium	NC	8,840-417,000	77,200	162,000
Chromium	2.9	70-72	40.7	29.6
Cobalt	23	16	14.8	10
Copper	3,100	94	63.4	42.4
Cyanide	1,600	NA	ND	1.2
Iron	55,000	38,100-43,200	33,500	24,700
Lead	4,000	5.4-7.7	9.9	10.3
Magnesium	NC	22,200	13,300	12,200
Manganese	1,800	1,630	727	547
Mercury	24	.06-0.31	ND	0.034
Nickel	1,600	41	23.7	15.2
Potassium	NC	5,270-10,800	1,430	1,560
Selenium	390	0.51-1.3	0.67	ND
Sodium	NC	1,590-2,250	1,170	1,570
Vanadium	390	56-144	91.8	67.4
Zinc	24,000	32	129	67.9

- Concentrations are in mg/kg, NC indicates no RSL calculated, ND indicates not detected
- Blue text indicates an exceedance of background soil concentrations

Conclusions/ Recommendation



- **Conclusions**
 - No explosives or perchlorate were detected in either of the residual samples .
 - All of the detected concentrations are well below residential RSLs.
 - Most metal concentrations detected in residue samples were within the range of metal concentrations detected in the background soils for the former VNTR.
- **Recommendation**
 - The collection of residue samples for analyses from the Truck Wash Area will be discontinued.