

MINUTES
NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH
RESTORATION ADVISORY BOARD (RAB)
AND COMMUNITY MEETING
SITE TOUR
July 12, 2010

Participants:

Blake, Geoffrey / RAB Community Member
Broderick, John / Regional Water Quality Control Board (RWQCB), Santa Ana Region
Cordova, Tom/Community Member
Fouts, Dan / BreitBurn
Fu, Christina / Department of Toxic Substance Control (DTSC)
Lee, Larry T. / RAB Community Member
Li, Cindy / RWQCB Santa Ana Region
Lieberman, Tara / Richard Brady and Associates
Matsumoto, Jeanne / DTSC
Reese, Brenda/Remedial Project Manager (RPM), Naval Facilities Engineering Command Southwest (NAVFAC SW)
Jordan, Jack/RAB Community Co-Chair
Smith, Gregg/Public Affairs Officer, NAVWPNSTA Seal Beach
Tamashiro, Pei-Fen/RAB Navy Co-Chair, NAVWPNSTA Seal Beach
Thorpe, Darwin/RAB Community Member

WELCOME

At 6:00 p.m., P. Tamashiro, Navy Co-chair and Base Installation Restoration (IR) Program Coordinator, began the 2011 IR Program Site Tour by welcoming the participants. P. Tamashiro introduced B. Reese, the Remedial Project Manager (RPM) for the IR Program from NAVFAC SW and G. Smith, NAVWPNSTA Seal Beach Public Affairs Officer (PAO). In addition, P. Tamashiro asked all participants to introduce themselves and sign-in. P. Tamashiro informed the participants that photography is not allowed on base, and Gregg Smith volunteered to take photos and email them to interested participants.

One handout was provided to the participants of the site tour, a map illustrating the general locations of the potential sites to visit on the tour: 1) IRP Site 75 - Agricultural Well KAYO-SB, 2) IRP Site 7 - Former Station Landfill, 3) IRP Site 22 - Oil Island, 4) IRP Site 74 - Former Skeet Range, 5) MRP UXO-1- Primer/Salvage Yard and Port of Long Beach Mitigation Pond, 6) MRP UXO6 - Westminster Port of Long Beach Fill Area.

P. Tamashiro announced that the main tour stops would be: 1) IRP Site 75, and 2) IRP Site 22, and that additional sites would be visited if time allowed.

The order of the sites visited is listed below. Questions and answers discussed during the site tour are summarized below.

SITE TOUR

IRP Site 75 – Agricultural Well KAYO-SB

Question: How many layers of clay were seen in the 300ft core?

Answer: Typical of delta environments, the geology is variable and transitions back and forth between clay and sand. The simplified geology is as follows: starting at the surface and decreasing with depth we observed clayey silt, sand, clayey silt, sand, shell fragments, then gravel, clay, sand, and finally clayey silt.

Question: Have there been temperature variations of the soil cores?

Answer: The soil core temperatures have varied from 70-79 degrees Fahrenheit.

Question: Have volatile organic compounds (VOCs) been observed?

Answer: Yes, VOCs have been observed in two layers: the first at 27-55 feet below ground surface (bgs), and the second at 78-100 feet bgs. No VOCs have been observed below 100 ft bgs.

Question: What color charts are used for soil characterization?

Answer: The Munsell Color Chart and grain size charts are used. This follows standardized logging procedures.

Question: How is the exclusion zone defined?

Answer: The physical exclusion zone is defined by the drillers and the chemical exclusion zone is defined by air monitoring.

Question: How is the soil cutting disposed of?

Answer: The soil goes into a roll-off bin, and is characterized as non-hazardous waste. Then it is properly removed from the base by a certified waste hauler to a landfill.

Question: How does the drill rig push through the soil? Does it compact the soil?

Answer: The sonic drill rig uses weight and vibration to push through the soil, and minimal compaction does occur.

Question: How long is the typical work day?

Answer: The drillers typically work an 8 plus hour shift, we stop when it makes sense within the drilling process, so sometimes it can be a longer day.

IRP Site 75 – Mobile Laboratory Tour

Question: What is the end game of this investigation?

Answer: Based on the Work Plan Decision Questions developed with input from both the Navy and Regulators, if concentrations are shown to increase across the property line away from the Navy's property, the conclusion will be that the contamination is not from a Navy source. If that is the case, the DTSC and RWQCB may want to find out who the potential responsible party is.

Question: How far do you think the source is away from the Agricultural well?

Answer: Approximately 5-6 potential sites were identified within ½ mile radius of Site 75 during a review of the Environmental FirstSearch Sites Summary Report, a Geotracker review, and government supplied information.

Question: What is the deepest observed depth of contamination?

Answer: The screening data collected shows that contamination is above 100 feet; below that there is a transition zone and the geology changes to clayey silt, which overlies deeper sands below 110 feet.

IRP Site 22 – Oil Island

Question: Are the oil production wells typical of other wells along the California Coast?

Answer: Yes, they are fairly typical. For example, at the BreitBurn Huntington Beach facility wells are drilled into the same rock as they are at Oil Island; however, the average depths of wells at Huntington Beach are uniformly shallower at 5,000-6,000 feet, compared to 8,000 feet at Oil Island.

Question: Horizontally how far out do the wells extend?

Answer: The wells are directional wells which extend at a gentle slope, not horizontal wells. The furthest well extends ¼ mile.

Question: How is the oil and water separated?

Answer: Oil and water are separated with gravity, no centrifuge is used. However, emulsion breakers are sometimes used to aid in the separation process.

Question: The map you have on display shows more than just Oil Island itself correct?

Answer: Yes, the map shows a subterranean view of the island. The mineral lease starts at 500 feet bgs. Access rights differ from leaser rights, and when the Navy acquired the land, it didn't purchase the mineral rights. The mineral rights were leased to BreitBurn which must operate in compliance with the Navy's regulations.

Question: Are there any new wells scheduled for development?

Answer: No, no new wells are planned. At this point in time the reserve of oil is not large enough to make it economically sound to install new wells.

Question: Are drilling muds different today than in the past?

Answer: In the past oil muds were bentonite clay based, like today, but they also contained toxic barium additives. These additives are not used today.

Question: Is there a reason Oil Island is located so close to the fault?

Answer: Yes, as the fault moves it causes the rock to rise, creating a dome where oil gets trapped. The island was strategically located over that trapped source of oil.

Question: What does the fault look like?

Answer: The fault looks like a discontinuation in the formation. The fault is actually a zone of faults, and you can see splays in the rock that show definite movement. In addition, this is an almost vertical fault; the movement is mostly horizontal with very little dip.

Question: Do you have to replace the pipe?

Answer: The 7-inch pipe is permanent, but we typically replace the additional pipe every 1-2 years.

Question: Are these classified as stripper wells?

Answer: Yes. The wells produce approximately 2-3 barrels of oil per day; if they produce less than 2 barrels Breitburn turns them off. In total we produce

60-70 barrels of oil per day.

Question: What is the condition of the slurry well?

Answer: The slurry well is holding up well. Breitburn monitors the perimeter of the island, and no issues have been observed along the edge.

IRP Site 74 – Former Skeet Range

Question: What happened to the vegetation that was present at the last RAB Site visit?

Answer: The vegetation was most likely cleared for fire suppression control around the shooting range.

ADJOURNMENT

P. Tamashiro adjourned the meeting at approximately 8:00 p.m.