

FOR IMMEDIATE RELEASE

Media Contacts:

Dee Millikin, CH2M HILL Plateau Remediation Company
(509) 376-1297, Dee.Millikin@rl.gov

Geoff Tyree, Department of Energy, Richland Operations Office
(509) 376-4171, Geoffrey.Tyree@rl.doe.gov

Record Amount of Groundwater Treated at Hanford

New systems, efficiencies support Department of Energy strategy

Note: Photos are available for downloading on our website at this link:

<http://www.hanford.gov/c.cfm/photogallery/tags.cfm/groundwater/1>

RICHLAND, WASH. – December 6, 2011- U.S. Department of Energy contractor [CH2M HILL Plateau Remediation Company](#) (CH2M HILL) announced today it set a new record in November for treating the most contaminated groundwater in a month at the [Hanford Site](#) in southeast Washington State.

The company treated a record 100 million gallons of groundwater, more than has been treated at the Hanford Site in a month since treatment systems began operating in the 1990s. The amount is equivalent to more than 150 Olympic-size swimming pools.

During treatment, water is pumped from the aquifer through wells, treated in facilities to remove contamination until it meets drinking water standards, and returned to the aquifer through injection wells.

CH2M HILL is the [U.S. Department of Energy's](#) prime contractor for monitoring and remediating groundwater, the water below the surface of the earth occupying spaces in soils or geologic strata, at the Hanford Site. Hanford has ten operable units where groundwater is contaminated, with eight major contaminants.

“The Department of Energy and CH2M HILL’s groundwater strategy focuses on treating contaminated groundwater near the Columbia River and containing and treating groundwater contamination in the site’s Central Plateau so that it does not reach the river,” said Briant Charboneau, Federal Project Director, DOE Richland Operations Office.

“CH2M HILL is developing techniques to prevent contamination in the ground from reaching groundwater, maximizing the amount of groundwater treated and minimizing the potential for contamination to reach the Columbia River,” said Dyan Foss, CH2M HILL Vice President of Soil and Groundwater Remediation. “We’re on schedule to maximize our systems and reach a capacity to treat 2.4 billion gallons of groundwater annually by 2015.”

During more than 30 years of operations at Hanford, approximately 450 billion gallons of liquids were discharged directly into the soil, through evaporation ponds and infiltration

structures. That is equivalent to the amount of water needed to supply the entire country with agriculture, industry and other uses for a day.

Discharged liquids were contaminated with radioactive elements, including strontium, uranium, technetium, iodine and chemicals including carbon tetrachloride and hexavalent chromium.

To date, more than 5 billion gallons of groundwater have been pumped out of the ground and treated to either the drinking water standard or the stricter standard for aquatic life. CH2M HILL utilized water optimization techniques to increase treatment capacity by 300 million gallons per year without adding new facilities. In addition, two new groundwater treatment facilities were constructed and a third is nearing completion.

“Workers achieved this record through continuous improvement and innovation,” said Bill Barrett, CH2M HILL Operations and Management Director. “Our team’s sustained performance has been impressive and is making a significant improvement to the environment.”

Efficiencies are further enhancing CH2M HILL’s groundwater treatment project. For example, a new resin in treatment systems is estimated to reduce lifetime operations costs nearly equal to the cost of construction of the facility, approximately \$20 million.

“Treating a record amount of groundwater is a testament of the team performing safely, efficiently and strategically to meet the goals of the site,” said Foss.

Headquartered near Denver, Colo., employee-owned CH2M HILL is a global leader in engineering, procurement, construction, management and operations for government, civil, industrial and energy clients. With \$6.4 billion in revenue and more than 25,000 employees, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by Engineering News-Record (2008). The firm’s work is concentrated in the areas of energy, water, transportation, environmental, nuclear and industrial facilities. The firm has long been recognized as a most-admired company and leading employer, including being named by FORTUNE as one of the 100 Best Companies to Work For and one of America’s Most Admired Companies (2008). Visit www.ch2mhill.com.

###



Samples of hexavalent chromium are removed from wells in the 100 Area as part of the groundwater treatment program.



The 17,500-square-foot 100-HX process plant uses 31 extraction wells and over 61 miles of piping to bring groundwater to the facility with a capacity to treat up to 35 million gallons per month. The treated water is then returned to the aquifer through a series of injection wells.



The 100-DX treatment system removes contaminants by passing groundwater through ion exchange resin. Using a more efficient resin than was used in systems in the past is expected to reduce long-term operating costs by \$20 million, roughly equivalent to the facility's construction cost.



A CH2M HILL pump-and-treat operator tests the resin at a 100K Area pump-and-treat system to determine how much hexavalent chromium contamination it has attracted (gathered) from the groundwater.