

**DOE Oversight Bureau, New Mexico Environment Department**

**Groundwater Monitoring at  
Sandia National Laboratories/New Mexico  
Burn Site Groundwater Area of Concern**

**Conducted by the  
New Mexico Environment Department DOE Oversight Bureau  
for FFY 2015 Q-4**

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**Final Report**

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The purpose of this communication is to transmit groundwater quality data collected by the New Mexico Environment Department DOE Oversight Bureau from Burn Site Groundwater monitoring well CYN-MW14A during fourth quarter FFY 2015.

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## **Introduction**

The New Mexico Environment Department (NMED) DOE Oversight Bureau (DOE-OB or Bureau) has compiled and assessed groundwater data collected on September 25, 2015. The Bureau collected groundwater samples from Burn Site (BSG) Area of Concern (AOC) monitoring well CYN-MW14A. Groundwater samples from CYN-MW14A were collected for perchlorate analysis only.

During the previous sampling event at BSG AOC in 3<sup>rd</sup> quarter FFY15, there were issues with the perchlorate data results, so the DOE-OB used two (2) different analytical laboratories for samples collected during 4<sup>th</sup> quarter FFY15. The analytical labs used by the DOE-OB were ALS Laboratory in Kelso, Washington and Test America in West Sacramento, California.

The DOE-OB collected an environmental sample, as well as a duplicate sample from CYN-MW14A for each laboratory to analyze for the presence of perchlorate. Split samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM) sampling procedures and equipment.

No samples collected for perchlorate were detected above their associated method detection limits (MDLs) from both ALS-Kelso and Test America-West Sacramento.

## **Data Assessment**

Currently there is no U.S. Environmental Protection Agency (EPA) National Primary Drinking Water maximum contaminant level (MCL) or State of New Mexico drinking water standard for perchlorate. However, perchlorate results are compared to the *Compliance Order on Consent (COOC) Pursuant to the New Mexico Hazardous Waste Act 74-4-10: Sandia National Laboratories Consent Order*, New Mexico Environment Department, April 19, 2004.

## **Results**

DOE-OB samples were analyzed for perchlorate using EPA method 314.0. No samples collected from CYN-MW14A were detected above their associated MDLs from both ALS-Kelso and Test America-West Sacramento. Data results are provided below in Table 1. The perchlorate screening level required by the Compliance Order on Consent is 4 µg/L.

**Table 1: NMED DOE Oversight Bureau FFY 2015 Q-4  
Burn Site Groundwater Perchlorate Results**

<b>SAMPLE ID</b>	<b>PARAMETER</b>	<b>RESULT (µg/L)</b>	<b>LABORATORY DETECTION LIMIT (µg/L)</b>	<b>MDL (µg/L)</b>	<b>LABORATORY QUALIFIER</b>	<b>SAMPLE PURPOSE</b>	<b>LAB ID*</b>
CYN-MW14A	Perchlorate	ND	1	0.4	U	REG	ALSK
CYN-MW14A	Perchlorate	ND	1	0.4	U	DUP	ALSK
CYN-MW14A	Perchlorate	ND	4	2	U	REG	TAWS
CYN-MW14A	Perchlorate	ND	4	2	U	DUP	TAWS

\*Lab ID: ALS Laboratory Kelso, WA (ALSK) and Test America West Sacramento, CA (TAWS)

MDL = Method Detection Limit

ND=Non-detected

U = Indicates the analyte was analyzed for but not detected.

### **Conclusion**

The DOE-OB collected split samples with SNL/NM from BSG monitoring well CYN-MW14A. Samples were collected for perchlorate only and analyzed by ALS-Kelso and Test America-West Sacramento. Perchlorate was not detected above the MDL in any of the samples collected from CYN-MW14A.

During 3<sup>rd</sup> quarter FFY15 perchlorate was detected at a concentration of 3.5 µg/L in the environmental sample, but was a non-detect in the duplicate sample collected from CYN-MW14A. The Bureau had the laboratory re-analyze the samples and both the environmental and duplicate sample results from CYN-MW14A were non-detects. The perchlorate sample results from 4<sup>th</sup> quarter FFY15 confirm the non-detect results from the re-analysis during 3<sup>rd</sup> quarter FFY15.

### **References**

New Mexico Environment Department (NMED), April 2004. *Compliance Order on Consent Pursuant to the New Mexico Hazardous Waste Act 74-4-10: Sandia National Laboratories Consent Order*, New Mexico Environment Department, Santa Fe, New Mexico, April 29, 2004.