March 17, 2005

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### ATOMIC SAFETY AND LICENSING BOARD

DOCKETED USNRC

March 21, 2005 (3:35pm)

OFFICE OF SECRETARY RULEMAKINGS AND ADJUDICATIONS STAFF

Before Administrative Judges: E. Roy Hawkens, Presiding Officer Richard F. Cole, Special Assistant Robin Brett, Special Assistant

In the Matter of:	)	
HYDRO RESOURCES, INC.	. )	Docket No. 40-8968-ML
P.O. Box 777	j	ASLBP No. 95-706-01-ML
Crownpoint, NM 87313	)	•

#### NOTICE OF ERRATA IN INTERVENORS' GROUNWATER PRESENTATION

Eastern Navajo Diné Against Uranium Mining, Southwest Research and .

Information Center, Grace Sam and Marilyn Morris (collectively "Intervenors"), by and through their undersigned attorneys, hereby notify the Presiding Officer and all parties of the following errata in the Intervenors' March 7, 2005 groundwater filing in the above-captioned matter:

- 1. Exhibit X, Wallace Declaration: cross-reference to Lucas Declaration, Exhibit II, missing on page 35; replacement page 35 attached hereto.
- 2. Exhibit II, Lucas Declaration: incorrect signature page; correct signature page (page 30) attached hereto.
- 3. Exhibit II, Lucas Declaration: incorrect Figure 1 in Lucas Exhibit D; correct Figure 1 attached hereto.

## Dated March 17, 2005

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#### UNITED STATES OF AMERICA **NUCLEAR REGULATORY COMMISSION**

#### ATOMIC SAFETY AND LICENSING BOARD

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#### **CERTIFICATE OF SERVICE**

I hereby certify that copies of "Notice of Errata in Intervenors' Groundwater Presentation." in the abovecaptioned proceeding have been served on the following by U.S. Mail, first class, and via email to those persons indicated by an asterix, this 17<sup>th</sup> day of March, 2005:

Administrative Judge, E. Roy Hawkens\* Presiding Officer Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D. C. 20555-0001

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- 65. A rigorous examination of documentation in HRI's application, elsewhere in the hearing record and in previous testimony by HRI's witnesses shows that there is little empirical support for HRI's and the Staff's finding that a confining layer of shale exists under the Westwater Canyon Aquifer at the Church Rock location. <sup>17</sup> Furthermore, the "stratigraphic column of the Church Rock site" that appears in Figure 3.7 of the FEIS (at 3-19) is likely a reproduction of a geophysical log for drill hole 2.8/17/7 that was included in addendums to the Revised Church Rock Environmental Report (HRI, 1993a) and is referenced on page 3-35 of the FEIS. I compared a copy of the log for 2.8/17/7 with the stratigraphic section in Figure 3.7 and they are quite similar. The NRC Staff relied heavily on the drill log for hole 2.8/17/7 to reach the conclusion that "[t]he Recapture Shale at the Church Rock site is about 55m (180 ft) thick. At the Church Rock site, drill hole 2.8/17/7 penetrated the total section of Recapture Shale." FEIS at 3-35. However, Dr. Lucas provides a convincing analysis that HRI and the NRC Staff misinterpreted this log, and that a confining shale layer — regardless of its name — does not lie below the Westwater. See Lucas Declaration, ¶ 27-35, attached as Exhibit II to Intervenors' Phase II Groundwater Presentation. Dr. Lucas concluded that the Westwater is in contact with the Cow Springs Sandstone at hole 2.8/17/7. Ibid., ¶ 32.
- 66. There are other reasons to doubt the existence of a confining layer underlying the WCA in Section 17. As I stated in ¶ 62 and ¶ 63 above, and in my January 1999 Testimony in Phase I of this proceeding (Wallace, 1999a), Hilpert's 1969 report for the U.S. Geological Survey stated that cross-sections of the Old Church Rock Mine in Section 17 indicate that the Westwater lies on top of a tongue of the Cow Springs Sandstone. As Dr. Lucas points out in his

<sup>&</sup>lt;sup>17</sup> The FEIS does not distinguish explicitly between a Section 8 mine site and a Section 17 mine site, but refers to the "Churchrock" site because the site had not been bifurcated into two contiguous mining units when the FEIS was published in February 1997.

- that "mine solutions are not expected to move vertically into aquifers above or below the mine zone" (FEIS at 4-15);
- f. The Westwater Canyon Member is characterized by small-scale channels
  that are visible at the outcrops south of Section 17, and hence the
  formation is heterogeneous at the scale of the proposed solution mining;
  and
- g. Such heterogeneity will accelerate groundwater flow, inhibiting containment of lixiviant. HRI should have modeled groundwater flow in the subsurface of the mining sites as heterogeneous, not as homogenous.
- 53. This concludes my testimony.

Pursuant 28 U.S.C. §1746, I declare under penalty of perjury, that the foregoing is true and correct to the best of my knowledge and belief.

Signed on the  $\frac{2.5}{\Lambda}$  day of February 2005.

Spencer G. Lucas, Ph.D.

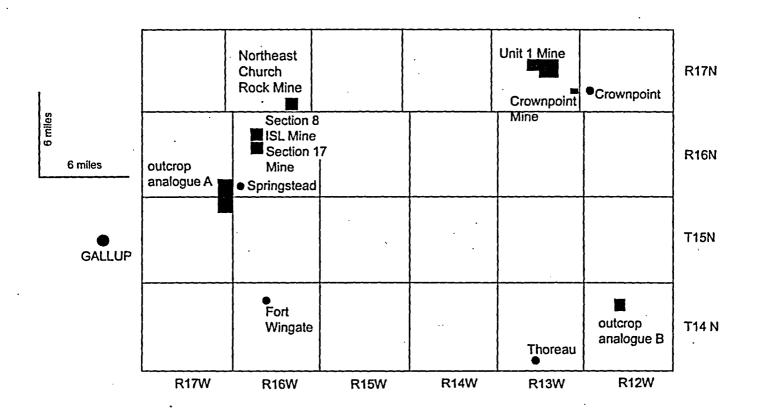


FIGURE 1



March 17, 2005

### BY ELECTRONIC MAIL AND U.S. FIRST CLASS MAIL

U.S. Nuclear Regulatory Commission Office of the Secretary Attn: Rulemaking and Adjudications Staff One White Flint North 11555 Rockville Pike Rockville, MD 20852

Re: In the Matter of: Hydro Resources, Inc.; Docket No: 40-8968-ML

Dear Sir or Madam:

Please find enclosed for filing "Notice of Errata in Intervenors' Groundwater Presentation". Copies of the enclosed have been served on the parties indicated on the enclosed certificate of service. Additionally, please return a file-stamped copy in the attached self-addressed, postage prepaid envelope.

If you have any questions, please feel free to contact me at (505) 989-9022. Thank you for your attention to this matter.

Sincerely,

Eric D. Jantz

Douglas Meiklejohn

New Mexico Environmental Law Center

**Attorneys for Intervenors** 

Enclosures