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General



Los Alamos Technical Associates, Inc.

P.O. Box 410 / 1200 Trinity Drive / Los Alamos, NM 87544 / Telephone (505) 662-9080 / FAX (505) 662-1757

TO: Distribution

FR: Suzanne Maez *Suzanne Maez*

RE: Groundwater Annual Status Reports for Fiscal Years 1999 and 2000

DA: April 23, 2001

Three documents are attached. The first is an errata sheet to the Groundwater Annual Status Report for Fiscal Year 2000 (LA-13820-SR). Please add the errata sheet to your copy of the report. The second attachment includes the revised cover pages for the same report. Replace the first two pages of your copy with the attached.

The third attachment includes the revised cover pages for the Groundwater Annual Status Report for Fiscal Year 1999 (LA-13720-SR). Replace the first two pages of your copy of this document with the attached revised pages. If you do not have the 1999 document, please disregard the attachment.

If you have any questions, please call (505-662-1813) or email me (s_maez@lanl.gov).

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ERRATA SHEET

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(Authors: Bolivar, S., Dorries, A., Smith, C.)

5.7 Environmental Restoration Project Information Management Activities

The Environmental Restoration (ER) Project is currently responsible for collecting many different categories of technical data related to the hydrogeological workplan. Technical data collected by ER Project personnel is managed in ER's relational tabular database. Data categories include, but are not limited to, drilling, well construction, water levels, geology, field and laboratory hydrologic tests, field and analytical data for groundwater and geologic media, geophysics, and geodetic surveys. The ER Project Information Management (IM) team began re-engineering the entire data management system in FY00, including a complete redesign of the technical database. The ER Project and the WQDB team are working jointly to ensure that similar data types, table structures, lookup table values, and data dictionaries will be shared by both organizations, so that data may be readily exchanged between the two databases. The ER Project is providing data stewards who are subject matter experts in the areas of analytical chemistry, geochemistry, geology, geophysics, hydrology, and well construction.

5.7.1 Legacy Data Cleanup and Migration

The ER Project has approximately eight years of legacy sample and chemistry data in the existing ER technical database, including data sets for boreholes, surface water, and alluvial and regional groundwater. In FY00, migration of legacy data into the new database table structures began. In order to implement the new database model, existing legacy data must undergo cleanup so that the database can be fully constrained and then migrated to the new table structures. Migration strategies were developed to allow these two activities to occur in a complementary, parallel fashion. Migration plans for the Location and Sample Modules were prepared and implemented in FY00. For the Location Module, 17,072 records were reviewed and migrated to the data table LOCATION_HDR. In preparation for migration to the Sample Module, 32,763 sample data records were reviewed and quality flags were assigned to individual meta-data fields. Subsequently, records for 32,763 individual samples were created in the main data table, SAMPLE_HDR, and 32,984 records were created in the data table SAMPLE_DETAIL.

In the first quarter of FY01, the migration plan for the Results Module was prepared and implemented. As of December 31, 2000, approximately 1.5 million analytical result records had been migrated to the CHEMICAL_ANALYSIS_RESULT table. It is anticipated that the remaining 750,000 result records will be migrated in January 2001.

5.7.2 Data Stewardship

The ER Project data stewards are working on improving data collection and data reporting procedures for data sets associated with the monitoring well installation program. Included in this effort are the data sets for analytical chemistry, drilling activities, field measurement parameters, geochemistry, geology, geophysics, hydrologic testing, screening analyses, and well construction, all of which are represented in the new database design. The data stewards are working to upload technical data contained in the FY00 well completion reports that was not stored in the previous version of the ER database. In particular, in the first quarter of FY01, the drilling, well construction, and geophysics data sets for R-12 were loaded into the Borehole Module of the new database model. It is anticipated that these data records will be made available for transfer to the WQDB in FY01.

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The ER Project adheres to a strict process for data reporting. All samples collected by the ER Project are analyzed only at ER- and DOE-approved laboratories. Technical data collected by the ER Project undergoes validation according to quality criteria published in EPA guidelines. Electronic data is authenticated by comparison with the hardcopy analytical reports. Electronic data sets are prepared by data stewards who perform necessary quality assurance checks. The ER Project releases only validated authenticated data sets that have been prepared by ER Project data stewards.

LA-13820-SR
Status Report

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*Groundwater Annual Status Report
for Fiscal Year 2000*

Los Alamos
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C. L. Nylander

*K. A. Bitner**

D. Broxton

K. Henning

*R. Hull***

*A. S. Johnson***

E. H. Keating

C. LaDelfe

P. Longmire

B. D. Newman

B. Robinson

D. B. Rogers

W. J. Stone

D. Vaniman

** Consultant at Los Alamos. Neptune & Company, 4600-A Montgomery,
Suite 100, Albuquerque, NM 87110*

*** Consultant at Los Alamos. Los Alamos Technical Associates, 1200 Trinity Drive,
Los Alamos, NM 87544*

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D. Vaniman

** Consultant at Los Alamos. Neptune & Co., 4600-A Montgomery, Suite 100,
Albuquerque, NM 87110*

*** Consultant at Los Alamos. Los Alamos Technical Associates, 1200 Trinity Drive,
Los Alamos, NM 87544*