



Department of Energy

Washington, DC 20585

SEP 02 1992

Mr. Joseph J. Holonich, Director
Repository Licensing and Quality Assurance
Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Holonich:

The enclosed Yucca Mountain Site Characterization Project participant monthly status reports are forwarded for your information. If you have any questions on the enclosed reports, please contact Priscilla Bunton at (202) 586-8365.

Linda J. Desell

Linda J. Desell, Chief
Regulatory Integration Branch
Office of Civilian Radioactive
Waste Management

Enclosures:

- (1) U. S. Geological Survey Yucca Mountain Project Monthly Summary, May/June 1992
- (2) REECo Yucca Mountain Project Status Report, June 1992
- (3) Sandia National Laboratories Yucca Mountain Project Status Report, June 1992

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WM-11 PDR

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cc:w/o encl.
C. Gertz, YMPO
cc: w/encl.
K. Hooks, NRC
R. Loux, State of Nevada
M. Baughman, Lincoln County, NV
J. Bingham, Clark County, NV
B. Raper, Nye County, NV
P. Niedzielski-Eichner, Nye County, NV
G. Derby, Lander County, NV
P. Goicoechea, Eureka, NV
C. Schank, Churchill County, NV
F. Mariani, White Pine County, NV
V. Poe, Mineral County, NV
E. Wright, Lincoln County, NV
J. Pitts, Lincoln County, NV
R. Williams, Lander County, NV
J. Hayes, Esmeralda County, NV
M. Hayes, Esmeralda County, NV
B. Mettam, Inyo County, CA

see enclosure stuff



United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 485
DENVER FEDERAL CENTER
DENVER, COLORADO 80225



I-329677 37

IN REPLY REFER TO:

July 14, 1992

Carl P. Gertz, Project Manager
Yucca Mountain Project Office
U.S. Department of Energy
P.O. Box 98608
Las Vegas, Nevada 89193-8608

Rec'd with letter dated 9/2/92
JORTI
SIMECKA
DYER WBS: 1.2.9.2
QA: N/A
DIXON KERTZ
SIMMONS & SIMMONS
BRONSKY & BLANCHARD
JONES-S
STUCKER-NOE
WALLACE-NOE
7/17/92

SUBJECT: U.S. Geological Survey Yucca Mountain Project Monthly Summary for May/June 1992.

Dear Carl:

In compliance with the revised Yucca Mountain Project monthly reporting procedures, following is the YMP USGS input for May/June, 1992. If you have any questions, please contact Raye Ritchey at FTS 776-0517.

WBS 1.2.3 - SITE INVESTIGATIONS

In support of precipitation and meteorological monitoring, the collection gage network was prepared for the onset of the summer monsoon season, which occurs in July and August in southern Nevada. May and June were very dry, with below-normal precipitation. Light rainfall events occurred during May, with June having no precipitation events. The network was expanded with the addition of a plastic wedge and a plastic 4-inch canister gage at N37, bringing the total number of wedges and 4-inch gages to 119. Some sites have both a wedge and 4-inch gage as cross checks and comparison of accuracies. A study was started to investigate the correlation of lightning strike data with rainfall amounts. Daily precipitation measurements from regional stations are compared with lightning patterns in the vicinity of each station. The goal is to develop a positive relationship between lightning strikes and rainfall amount and apply the relationship to areas within the UARW that do not and will not have precipitation gages. This relationship can be used to provide an estimate of precipitation as a boundary condition in a net infiltration model of the UARW. It

102.8

is estimated that it will take several years to gather adequate data because thunderstorm activity is limited primarily to the spring and summer months.

The surface-water runoff monitoring project reports that streamflow sites located on the Nevada Test Site recorded no runoff during May or June. The inability to receive permits from the BLM (California) has resulted in a redirection of the activity for installation of two Amargosa gages. On May 21, DOE was again contacted as to the status of both the Eagle Mountain and California State Line installations; the Principal Investigator was told, that after more than four attempts, the BLM showed no sign of acting on the request. Installation of these sites has been postponed indefinitely. Emphasis will be directed to the installation of an additional site on the eastern slope of Yucca Mountain; DOE currently is conducting environmental and archeological surveys.

Staff from the transport of debris by severe runoff project attended the ALPHA Paleohydrology workshop and field trip. The field trip was particularly relevant to this activity in that it presented abundant stratigraphic evidence of historic flooding in northern Arizona and southern Utah. Most of these floods occurred due to increased runoff that was generated by intense storms. Datable materials, enclosed within flood debris such as slack-water deposits, provided flood chronologies that are attributed to climatic change (e.g., El Nino years or latest Holocene glacial events). Additionally, methods for deriving drainages, especially those containing large long-growth trees, were presented. The trip provided an excellent overview of the processes and products of severe runoff in the arid southwestern United States.

In support of studies of regional potentiometric levels and hydrologic properties, another 160' of 1" galvanized steel pipe and sucker rod were installed in a 2" piezometer west of Stateline, Nevada. An electric winch was added to a modular tripod to facilitate installation of the pipe, and resulted in much easier installation; a "stuffing box", used to keep water from discharging past the sucker rods, was also added. The piezometer was pumped at a rate of about 5 gallons per minute for a combined total period of about 2 hours, but only for 15 minutes per pumping cycle because the piezometer would go dry.

Staff from the Fortymile Wash recharge study read rain wedges at and neutron logged UE-25 UZN#92 and UE-29 UZN#91. Depth to water measurements were made in UE-29 UZN#91, UE-29 a#1, and UE-29 a#2. Data collection frequency was increased to document an ongoing recharge event and effects from the Rock Valley earthquake. Procurement of equipment for air-k tests has been delayed because air permeability tests need to be reevaluated for their help in determining recharge from Fortymile Wash. Experts in the field will be consulted to determine whether the costs and effort to obtain air-k data will be useful in meeting Fortymile Wash recharge objectives. This delay will not impact major deliverables.

The evapotranspiration studies project reports that sites to be used for piezometer nests cannot be determined until an evaluation of the number of sites is completed. This is delayed pending evaluation and testing of the chloride profiling method, which may minimize the need for piezometer tests.

J. Czarnecki helped organize and participated in a joint meeting of the Hydrology Integration Task Force and the Geochemistry Integration Team, held in Denver June 9-11, titled "Fast Pathways: Definition and Detection". Czarnecki presented a talk on the subregional ground-water flow system with emphasis on uncertainty regarding flow coming into Yucca Mountain, based on examination of hydrologic and hydrochemical data. Participants broke into working groups to define strategies for identification of fast pathways and to develop recommendations to DOE for accomplishing the task.

Staff from the characterization of hydrologic properties of surficial materials project completed compilation and analysis of existing soils data. Geostatistical analysis on these data was performed indicating spatial correlation in sand content of approximately 1000-2000 ft. while there was a pure nugget effect in bulk density. GWC had a lag of about the same percent as sand. Due to the large scale of this study area, reconnaissance information is progressing to highlight new understanding and to address where additional information is needed to plan a full scale field sampling scheme to adequately characterize field soils.

The natural infiltration project reports that some planned activities were redirected or canceled as a result of the Mission 2001 exercise. The large scale deterministic modeling activity was canceled and the small scale deterministic model will be expanded into two small watershed models, one over the repository zone at Split Wash and one further north where there is more exposed fractured bedrock and higher rainfall in Pagany Wash. These small watershed models will be applied to a large watershed model in FY 1994; in the interim, these small models will use data from all three infiltration activities to develop a model that can accurately predict current field conditions and reasonably extrapolate over time given climatic changes. Borehole N-53 was completed to 250 feet in WT-2 Wash next to N-54 using the CME 850 track mounted rig. All remaining neutron holes have been staked and the next holes are planned to begin in mid-July following all environmental compliances.

The IDAS project reports that a preliminary HRF integration test using the HRF boreholes was conducted in late May; several critical bugs and about 20 minor bugs were discovered in the software. As a result of these findings, design review meetings were held to determine what design modifications are needed to resolve noted deficiencies. It was decided that a major redesign effort with system maintenance was desirable, but not possible within the time frame required for Release 1.0 of the IDAS software. Redesign of the system maintenance will be deferred until after the first hydro instrumented UZ borehole is online. It also was decided at these

meetings to undertake a restart of the HRF test during the first two weeks of September; to redefine the scope of the software development by limiting it to only those modifications needed to allow IDAS to perform in a minimally configured data gathering mode. Since the HRF test in May, the majority of the minor bugs have been corrected. Hotwiring of IDAS access control, and modifications to the sensor operation software are currently being implemented to meet minimum configuration requirements for a HRF restart in September.

In support of prototype infiltration testing, the 1st stage of the ponding test on the large block was completed on May 11. The water front moved about 40 to 45 cm in the fractures and 5 to 10 cm in the matrix surrounding the fracture. Water movement in the fractures was not as fast as expected. Eight out of eighteen thermocouple psychrometers showed an increase in water potential (and saturation). Except for two psychrometers, the potential level was still detectable. The 2nd stage of the ponding test is being bypassed because the first stage took longer than expected and the water potential did not go beyond the limit of the psychrometers. The final stage of the ponding test was begun on May 11. A positive water pressure of around 5.5 cm of water was applied to the top of the block. The flow rate has been around 25 cubic cm of water per day in the rock matrix and fracture. Visual observations and psychrometric measurements indicate that most of the water is being imbibed by the fracture surfaces and not the cut faces, which indicates that the properties of finished rock surfaces get altered after cutting the rock. This may cause incorrect measurements of rock matrix permeabilities.

In support of the conceptualization of the unsaturated zone hydrogeologic system, LBL modelers continued to incorporate USGS geologic and hydrologic data from neutron boreholes in the construction and refinement of 2 cross sectional models. When the model has been completed, it will be used to conduct sensitivity analyses to test hypotheses concerning the hydrologic system and investigate grid effects on moisture flow.

The prototype pore water extraction project reports that four partially welded cores were hand cut in preparation for testing and all were compressed using the one-dimensional compression method. The saturations ranged from 46.9 to 61.1 percent with successes from 9.5 to 18.2 percent. Only 2 to 4 ml of water were expressed after nitrogen injection. Fifty pore-water samples that were extracted from welded and nonwelded tuff cores using one-dimensional compression methods were tested for dissolved carbon dioxide concentration and retested for Ph in USGS labs. Results of these tests will be compared to the water chemistry data provided by Huffman Laboratories for the same pore-water samples. Calibration tests for the MI-442 potassium microelectrode were performed using known standards. These tests are being conducted in preparation for evaluating concentrations of cations and anions dissolved in pore water in USGS labs and as a check on contracts labs.

Staff evaluating site potentiometric levels report that an investigation began of the water-level and fluid-pressure responses in wells at Yucca Mountain to two major earthquakes in California on June 28, and an earthquake near Yucca Mountain on June 29. Preliminary analysis of records from USW H-5 indicates responses in excess of 1.7 feet. Within a couple of hours after the Nevada earthquake, fluid pressure in the well returned to within one inch of its pre-earthquake level. Analysis of responses in other wells began and is continuing.

In support of single and multiple well hydraulic stress testing, analysis was conducted of strain-related hydraulic response data from wells h-5 and h-6. On June 28, a magnitude 7.4 earthquake epicentered in Joshua Tree, CA, and another smaller earthquake epicentered in Big Bear Lake, CA, caused more than 1.7 feet of total transient displacement in the free water level in well h-5. On June 29, a magnitude 5.6 earthquake epicentered near Lathrop Wells, Nevada caused transient water level and confined-pressure displacement in wells h-5 and h-6. Staff will analyze pressure and water level response data from these major seismic events.

Staff from the conceptualization of saturated zone flow models project completed analysis of existing data at the UE-25c-well complex, compiling television and acoustic televiewer logs, in addition to caliper logs, core analyses, tracejector surveys, temperature logs, static tracer tests and heat-pulse surveys into a conceptual geologic model. The geology will be incorporated directly into preliminary hydrologic models via 3-D discretization of the geology into the model mesh.

To assist in the development of the fracture network model, mapping was begun in the basal unit of the Prow Pass Member at Raven Canyon. In addition, the Magellan Global Positioning Satellite locator system was used in differential mode to locate fracture mapping sites east of Little Skull Mountain. The method was of limited success because of difficulty obtaining accurate altitude measurements. The fracture mapping sites may need to be surveyed in at a later point.

In support of stratigraphic studies, staff continued to analyze samples from G-4 drill core for precise Sr isotopic ratio determinations. Data will be used to test the application of high-precision isotope stratigraphy within an otherwise monotonous thickness of tuff representing the potential repository horizon. High Rb concentrations in rhyolitic tuffs require more accurate Rb/Sr determinations than typically obtained by the standard XRF analytical technique in order to make age corrections for initial $^{87}\text{Sr}/^{86}\text{Sr}$ isotopic compositions. Samples were processed to determine Rb by isotope dilution mass spectrometry, and will be used with previously obtained Sr data to calculate initial Sr isotopic compositions.

Staff from the geologic mapping of zonal features project spent one

and one-half days in June at the site investigating some of the tuffs on the southern end of Yucca Mountain, purported by proponents of the upwelling hot-water hypothesis to be hydrothermally altered and explosively brecciated along faults. Field checks of these localities, which are critical to the upwelling water model, revealed that primary volcanic features have been misinterpreted by upwelling proponents. All tuffs examined were fresh, glassy, non-welded airfall and non-welded pumiceous ashflow deposits. Well-sorted airfall ("popcorn" ash) beds are white to light buff, whereas non-welded ashflow units are pink to light orange, particularly in the upper portions of each cooling unit. All tuffs contain individual pumice clasts (up to 5 to 8 cm) which retain delicate glass bubble walls and shared structures. Preservation of these delicate, highly porous features which react readily to warm circulating fluids, is conclusive evidence that hydrothermal alteration did not take place. The proponents of upwelling base their hydrothermal argument solely on coloration of the tuffs, with no other mineralogical, geochemical or physical evidence. The observed reddish coloration of ashflow units is a classic example of high-temperature oxidation of ferrous iron during cooling and degassing immediately following emplacement of thicker ashflow deposits. Also, no evidence for brecciation associated with faults was observed at the same outcrops identified by the upwellers. These USGS staff conclude that upwellers misinterpreted primary ashflow textures (e.g., pumiceous and lithic clasts supported by a fine ash matrix) as their fault-related "breccia". An open file report is being prepared detailing these arguments. Mapping and measurement of fault characterization parameters continued along and within the Ghost Dance fault on Yucca Mountain, with emphasis during May/June north of Whale Back Ridge. The detailed investigation of stratigraphically and structurally complex terrains at a scale of 1:12,000 in the area north and east of Prow Pass was completed. Numerous faults (unmapped in this detail) were observed in the upper units of the Paintbrush; these will be the focus of the detailed mapping to be done in the northeast sector of the site area. A portion of the Rhyolite of Calico Hills was mapped in detail, and a stratigraphic section 183 m thick was measured and sampled in upper Paintbrush Canyon. This section contained three distinct rhyolite lava flows and two distinct bedded ashflow tuffs, one of which contains a tentatively identified surge deposit at its base. Several previously unmapped NW- to SE-trending faults displaying oblique slip and strike-slip movement were observed in upper Paintbrush Canyon. Field mapping continued in Crater Flat west of Yucca Mountain. Initial results suggest structure similar to Yucca Mountain, with northward-decreasing offsets on north-trending normal faults and northward increase in left-lateral oblique slip.

In support of surface fracture network studies, statistical analysis for existing Tiva stations was completed (histograms and stereo-analysis). Fracture data were collected from four bedded-tuff stations and one upper-lithophysal station. Pavement 500 was occupied. Validation of existing data is 50 percent complete. Six traceline surveys approximately 100 ft. long have been added to the

database to supplement existing data. Evaluation of the Scott and Bonk fault mapping at Pavement 500 is complete. There are no major faults at this location. Correction needs to be made to the SEPDB as this pavement was incorrectly located according to EG&G maps. A major transverse trend which appears to line up with changes in fabric trends at Fran Ridge suggests a newly recognized component to the tectonic trends in the region.

The soil and rock properties project reports that all north ramp test pits have been excavated and in-place testing completed. Logging of the test pits is complete. The site for drillhole SRG-1 was inspected and the necessary environmental, archeological, and other surveys planned. SRG-1 was completed in June.

In support of studies of lakes, playas, and marshes, two ostracode samples, from the WIPP site in New Mexico, were analyzed for Sr concentration and isotopic composition. This is part of a feasibility study to determine whether ostracode valves might be used to record Sr isotopic ratios in equilibrium with the waters in which the organisms lived, or if the valves are subject to low-T Sr exchange during subsequent diagenetic processes. Results from these first two samples indicate that ostracode valves contain high Sr which should allow future analysis of very small sample sizes.

Staff from the eolian history of Yucca Mountain project analyzed five playa samples from the Yucca Mountain vicinity for Sr isotopic compositions and trace element contents. The purpose of this work is to evaluate possible contributions of finely-dispersed playa-derived components in Yucca Mountain soil carbonates. Both 1.0 N hydrochloric acid and 10% acetic acid leaches were analyzed, along with residues from leached samples. In general, residues have slightly higher $^{87}\text{Sr}/^{86}\text{Sr}$ than their corresponding leachates. Analysis continued of materials from Yucca Mountain and the surrounding vicinity for Pb, U, and Th isotopes. Soluble fractions of some Trench 14 and pedogenic carbonates have previously been reported to have high $^{206}\text{Pb}/^{204}\text{Pb}$, $^{207}\text{Pb}/^{204}\text{Pb}$, and $^{208}\text{Pb}/^{204}\text{Pb}$ ratios, which cannot be derived from any of the Tertiary volcanic units. As a means of tracing these unique components within surficial deposits, Pb isotopes are being studied from known eolian derived dust samples, and from some of the Paleozoic units in surrounding uplift blocks. Preliminary results indicate that unaltered Paleozoic carbonates have low Pb concentrations but high radiogenic Pb isotopic signatures similar to the Trench 14 leachates. These, and additional results, along with Sr isotopic and trace element geochemical data, will be used to model various constituents and calculate mass balance mixtures to better define the origins of Yucca Mountain surficial deposits.

In support of the evaluation of past discharge areas, spring and well samples collected on a March 1992 field trip have been completed for strontium. Samples of particular interest include two analyses from wells at Amargosa Valley (RV Park and Cowboy Joe's) which gave identical delta ^{87}Sr values of 3.54. These values

are similar to those for wells in Fortymile Wash (J-12, J-13 and JF-3). One sample gives a delta ^{87}Sr value of 4.85 which is within the range of the main springs at the Ash Meadows Discharge Area. Located between Franklin Playa and the Ash Meadows Spring line, King Springs also yields a delta ^{87}Sr value of 5.03 which is consistent with Ash Meadows system ground water. Additional samples were analyzed; samples taken from VH-2 in Crater Flat are of particular interest. Three samples collected over a one-year period gave Strontium ratios of 5.37, 5.34 and 5.32, which are considerably higher than any other ground-water samples thus far analyzed from the Tertiary aquifer in the vicinity of Yucca Mountain (mean delta ^{87}Sr = 2.13). The higher delta ^{87}Sr for Crater Flat is similar to the three spring deposits on the south end of Crater Flat. Ostracodes were found in the following spring/flowing well localities: King Springs, Grapevine Springs, Carson Slough flowing well, and East Spring-Carson Slough. Playa samples from Red Lake, AZ., Jean Lake, NV, Roach Lake, NV, and Mesquite Lakes, CA, were devoid of ostracodes indicating that the surficial deposits represent a dry playa.

Staff from the calcite-silica project completed reconnaissance study of 24 polished thick sections from USW G-1 and G-2 for reconstruction of cathodoluminescence (CL) stratigraphy of fracture coating calcite from the unsaturated zone of Yucca Mountain. This reconnaissance strongly suggests that CL stratigraphy should permit definition of a time sequence of calcite deposition within the mountain that will allow cross correlation between and within drill holes of stable isotope and other geochemical information of secondary calcite samples from within the UZ.

Staff from the regional paleoflood evaluation project joined with other Yucca Mountain Project investigators to examine the geomorphic history of the White River drainage east of the NTS. The purpose of the trip was to seek evidence of intense paleo-streamflow. Although the White River is an ephemeral stream today, it is believed that this system was considerably more active in mid- to late-Quaternary time. The Holocene flood history of the drainage needs to be addressed by the regional paleoflood evaluation because of its close proximity to Yucca Mountain and the Nevada Test Site, and the likelihood that this area will provide additional evidence about regional paleoclimatic change. During this reconnaissance, attention was focused on several areas where crucial paleoflood evidence may be procured. These, and other target sites of severe runoff, will need to be revisited during subsequent field investigations. One such area lies along the flanks of truncated alluvial fans south of the Narrows where fresh fluvial deposits suggest that intense storms may have generated large, high-magnitude streamflows in late-Holocene or possibly historic times.

In support of exploratory trenching in Midway Valley, a 12,000 foot long trench (MWV-T5-A) was excavated through the proposed ESF. Safety inspections have prevented logging activities from starting

until the trench walls are determined to be stable. Preliminary examination revealed a fault and an additional trench (MWV-T6) was excavated parallel to the long trench. Trench 17 (MWV-T4) was deepened and existing walls cleaned. Logging activities are pending approval of the safety inspectors.

WBS 1.2.5 - REGULATORY & INSTITUTIONAL

In support of water resources monitoring activities, well JF-3 was instrumented and continuous water-level data collection was initiated.

Sincerely,

Larry R. Hayes

for Larry R. Hayes
Technical Project Officer
Yucca Mountain Project
U.S. Geological Survey

cc: D. Appel, USGS/Denver
J. Blakey, USGS/CR
T. Blejwas, SNL/Albuquerque
R. Bullock, RSN/Las Vegas
D. Campbell, USBR/Denver
J. Canepa, LANL/Los Alamos
T. Chaney, USGS/Denver
T. Conomos, USGS/WR
J. Cook, USGS/SR
R. Craig, USGS/Las Vegas
J. Docka, Weston/Washington D.C.
R. Dyer, DOE/YMPO/Las Vegas
L. Ducret, USGS/Denver
W. Dudley, USGS/Denver
D. Faust, TESS, Las Vegas
D. Gillies, USGS/Denver
R. Hirsch, USGS/Reston
V. Iorii, DOE/YMPO/Las Vegas
C. Johnson, TESS/Las Vegas
K. Krupka/PNL
R. Lowder, MACTEC/Las Vegas
R. Pritchett, REECO/Las Vegas
R. Ritchey, USGS/Denver
E. Roseboom, USGS/Reston
D. Russ, USGS/
J. Sauer, USGS/NR
V. Schneider, USGS/Reston
M. Siegel, SNL, Albuquerque
A. Simmons, DOE/YMPO/Las Vegas
R. St. Clair, TESS, Las Vegas
T. Statton, TESS, Las Vegas
J. Stuckless, USGS/Denver
K. Taylor, Washington, D.C. (U.S. Senate)
N. Trask, USGS/Reston
J. Verden, TESS, Las Vegas
B. Viani, LLNL/
J. Weeks, USGS/Denver
R. Wesson, USGS/
YMP-USGS Local Records Center File 1.1.02



Reynolds Electrical & Engineering Co., Inc.

Post Office Box 98521 • Las Vegas, NV 89193-8521

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IN REPLY REFER TO:

580-01-539

WBS 1.2.9.1
QA: N/A

July 13, 1992

Carl P. Gertz, Project Manager
Yucca Mountain Site Characterization
Project Office
U.S. Department of Energy
Post Office Box, 98608
Las Vegas, NV 89193-8608

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP) STATUS REPORT

Attached is the June YMP Status Report for Reynolds Electrical & Engineering Co., Inc.'s participation in the YMP.

If further information is required, please contact Sandra L. Hughes at 794-7192.

Bruce Gardella for RFP

R. F. Pritchett, Manager
Yucca Mountain Project Division
YMP Technical Project Officer

RFP:SLH:mab

Enclosure
Status Report (3 pages)

cy: See page 2

DIVISION *Gertz (2)*
 CC: *See Distribution*
 CC: *Gertz (YMP)*
 CC: *Johnson w/o*
 CC: *Beech Kop*
 CC: *Brodskey*
 CC: *Jones, S*
 CC: *Waters*
 CC: *Stucker-lw22*

REC'D IN YMP
7/14/92

REECO

AN EGB COMPANY

ENCLOSURE 2

Carl P. Gertz
580-01-539
Page 2
July 13, 1992

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Central Files, M/S 530 THRU
Executive Office, M/S 555

~~C. E. Hampton, DOE/NV, M/S 505~~
~~L. M. Smith, DOE/NV, M/S 505~~
~~M. B. Blanchard, DOE/YMP, M/S 523~~
~~J. S. Clanton, DOE/YMP, M/S 523~~
~~M. O. Cloninger, DOE/YMP, M/S 523~~
~~W. R. Dixon, DOE/YMP, M/S 523~~
~~J. R. Dyer, DOE/YMP, M/S 523~~
~~B. D. Hutchinson, DOE/YMP, M/S 523~~
~~V. F. Iorii, DOE/YMP, M/S 523~~
~~E. H. Petrie, DOE/YMP, M/S 523~~
~~W. B. Simecka, DOE/YMP, M/S 523~~
~~W. A. Wilson, DOE/YMP, M/S 717~~
L. D. Foust, M&O, M/S 423
M. M. Martin, M&O, M/S 423
R. L. Robertson, M&O/Fairfax, VA
P. Prestholt, NRC/Las Vegas, NV
R. C. Furtek, REECO, M/S 235
B. R. Gardella, REECO, M/S 408
W. J. Glasser, REECO, M/S 408
J. L. Henze, REECO, M/S 751
R. B. Land, REECO, M/S 585
T. M. Leonard, REECO, M/S 408
K. L. Limon, REECO, M/S 408
C. J. Mason, REECO, M/S 751
S. O. Straub, REECO, M/S 408
J. R. Trujillo, REECO, M/S 590
R. A. Adams, SAIC, M/S 517
M. Brodeur, SAIC, M/S 517/T-23
R. D. Hutton, SAIC, M/S 517
S. C. Smith, SAIC, M/S 517/T-10
J. W. Teak, SAIC, M/S 517
J. E. Therien, SAIC, M/S 517
R. S. Saunders, W, M/S 517/T-24

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
(REECO)

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

JUNE 1992 - STATUS REPORT

SITE (1.2.3)

WBS 1.2.3.5

Task: Capital Equipment to Support Drilling Programs

Specifications and procurement requisition are in preparation for the drill rig to replace the Joy 1.

The pipe spinner for the CME-850 drill rig was delivered and accepted.

Task: Neutron Access Holes (Job Package 91-9)

Completed UZ-N53 at 234.47 feet.

Task: JF-3 Water Monitoring Well (Job Package 92-1)

Construction support is complete; rebuild costs on pump that was removed due in July.

Task: North Portal Drill Hole and Surface Facility Test Pits (Job Package 92-2)

Removed shoring from the NRG-1 test pits and commenced backfilling pits. Twenty-one of the thirty-three pits are backfilled.

Rigged up the CME-850 drill rig and associated equipment on UE-25 NRG-1. Completed hole at 150.12 feet. Rigged down and moved equipment to the Area 25 Subdock.

Task: UZ-16 Drilling and Testing (Job Package 92-3)

Set 16-inch casing at 52.2 feet. Cored to 98.65 feet and reamed hole to 85.15 feet. Received directions from DOE/YMPO to cease drilling operations on June 24, 1992, at approximately 9:30 a.m., due to levels of particulates in the dust plume suspected to be above OSHA Standards, 29 CFR 1910, Subpart Z, for silica and respirable dust. Commenced test coring and reaming on June 24, 1992, at 11:00 a.m., with Environmental Compliance and Industrial Hygiene representatives on location to monitor and sample dust emissions. Continuing test coring and reaming and modifying dust suppression system while monitoring and sampling dust emissions. Core hole depth is 118.68 feet; 12 1/4-inch diameter reamed hole is 108.43 feet.

The milestone T531, Begin Deep UZ Hydrological Hole Drilling, was completed on May 27, 1992.

Task: Midway Valley Trenching (Job Package 92-5)

Completed test pit excavation requirements of Phase II. Excavated on five trenches, completing four. Relocated shoring in test pits.

General Support

Certification of the Failing Stratmaster drill rig is 85 percent complete.

EXPLORATORY STUDIES (1.2.6)

WBS 1.2.6.1

Task: Exploratory Studies Facility (ESF)

Amendment 2 (mailed June 16, 1992) and Amendment 3 (mailed June 19, 1992) to Request for Proposal 1-DH-92, for the Technical and Underground Excavation for Exploratory Studies Facility, were sent to all prospective offerers.

FIELD OPERATIONS (1.2.7.4)

Task: Administrative & Maintenance Support

Continued support to W. A. Wilson, Yucca Mountain Site Manager, to include: processing of purchase requisitions for the Field Operations Center (FOC) Site Office requirements; providing support services to participants and maintenance on YMP utilized facilities, equipment and roads in Area 25; and providing logistical and support services to management contractor.

Provided support for the Yucca Mountain Site Office open house and public tours. Support included but was not limited to: arrangements for buses, registration of guests, coordination of lunches/beverages, medical service, furniture, mechanical service and grading of access road. Continued preparations for upcoming tours.

Performed cleanup of stained oil at the Area 25 FOC parking lot.

PROJECT MANAGEMENT (1.2.9)

WBS 1.2.9.1

Task: Management and Administrative Support

Continued coordination and staffing of YMP displays at meetings, exhibits and conferences; staffed and supported the Public Reading Room of the Research and Study Center.

Task: Hazardous Materials Coordination

The Hazardous Materials Coordinator submitted Revision 3 of the Materials Reporting and Handling Plan to the Project Office for approval.

Task: Long Range Planning (LRP)

Completed submittals, including revisions, to budget and schedules for the Mission 2001 exercise; completed Independent Cost Estimate review comments for all work breakdown structure elements.

WBS 1.2.9.3

Task: Quality Assurance (QA)

Worked on, reviewed, received and/or resolved comments on 22 Management Control (MC) Procedures; issued one MC Procedure for controlled distribution.

Issued minor changes/revisions to our Quality Assurance Program Plan to DOE/YMP for approval.

Evaluated the Company's vendor approval process at the NTS.

Closed Deficiency Notice DN-92-009, issued to Quality Services, and DN-92-010, issued to the YMP Division Office, after verifying that all actions were satisfactorily completed.

Issued DN-92-012 to the YMP Division Office with a response due date of July 1, 1992.

Issued Surveillance Report SR-007-92 to the YMP Division Office for their information and review.

Met with DOE/YMP QA and the M&O to discuss performance of first line quality control inspections.

Provided support for the DOE Audit YMP-92-17 of REECo/YMP which identified no findings and confirmed adequate and effective implementation for the areas evaluated.

Reviewed and submitted comments on draft OB of the OCRWM Quality Assurance Requirements and Description (QARD) document to DOE/YMP.

Scheduled Audit No. REECo-008-92 of the Communications and Electronics Department for July 15, 1992.

Assisted the Training Administrator with the presentation of and attended training on the revisions to the training and qualification MC Procedures.

Reviewed and accepted the action plan on DN-92-011 to be completed by July 31, 1992.

Issued the YMP QA Audit/Survey Plan to the Human Resources Department and conducted Audit No. REECo-007-92 with no findings identified.

Provided the YMP Division Office with a list of MC Procedures that remain to be written to fully implement the QA Program and meet the proposed DOE QARD requirements.

Performed an overview of Drilling; Calibration; and Environment, Safety & Health activities at Area 25 and Mercury.

Sandia National Laboratories

Albuquerque, New Mexico 87185

JUL 28 7 53 AM '92

WBS: 1.2.9
QA: NA

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Carl P. Gertz, Project Manager
Yucca Mountain Site Characterization
Project Office
Nevada Operations Office
101 Convention Center Drive
Phase 2, Suite 200
Las Vegas, NV 89193-8518

Attention: V. F. Iorii

Dear Carl:

Subject: June 1992 Monthly Highlights and Status Report

Enclosed is the Monthly Highlights and Status Report for the month of June 1992. If you have any questions, please call Fran Cheek-Martin at (505) 844-7810.

Sincerely,

Thomas E. Blejwas, Manager
YMP Management Department 6302

FCM:6318:jd
Enclosure

*Strucker-ewo
Johnson-wo*

DIVISION *Laird*
CC *Clanton*
Deyer
Harrison
Royer
Cheek
Brudvik
Green
Kerby
REC'D IN FILE
7/27/92

ENCLOSURE 3

Copy to:

YMPO U. Clanton
YMPO M. Cloninger
YMPO D. Dobson
YMPO J. Robson
YMPO W. B. Simecka
YMPO V. F. Iorii
NRC P. T. Prestholt
M&O M. Martin
TESS S. J. Bodnar (2)
TESS E. M. Fortsch (2)
TESS R. K. St. Clair (2)
USGS B. Raup
ORNL R. B. Pope
CCS S. O'Connor
6300 D. E. Miller
6302 T. E. Blejwas
6302 J. T. Holmes
6312 F. W. Bingham
6313 L. S. Costin
6316 J. W. Teak, SAIC
6318 S. E. Sharpton
6318 F. Cheek-Martin
6318 B. J. Mathis
6319 R. R. Richards
6115 P. J. Hommert, Acting
7111 J. S. Phillips
6302 Library
6318 31/12911/1.3/NQ
6318 YMP CRF