UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Reply to:
301 E. Stewart Ave., #203
Las Vegas, NV 89101

Tel: (702) 388-6125

TO: Joseph Holonich, Director, HLPD, M/S 4 H 3

FROM: Sr. On-Site Representatives Office, Las Vegas

DATE: September 3, 1992

SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEKS ENDING AUGUST 7, AND AUGUST 21, 1992 (August 14 highlights have already been forwarded)

Please find enclosed the above-referenced reports.

There is nothing requiring specific management attention in the report.

cc: w/enc.: William Belke, M/S 4 H 3
Rosetta Virgilio, M/S 3 D 23
Dean Kunihiro, Region 5

PTP:nan

NOTE TO WILLIAM BELKE: Also enclosed is the Daily Operations Reports, NRC Weekly Interactions Calendar, Field Test Coordinator's Reports for August 17-21, 1992; Sandia National Laboratories July 1992 Monthly Highlights and Status Report; and Preliminary Field Composite Borehole Logs (UE-25 UZN-63)

See enclosure in Shelf in Boxes
8/27/92 WBS 1.2.9.2 QA: N/A

102
WM-11
NH03

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Please find enclosed the above-referenced reports.

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PTP:nan

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Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

AUG 27 1992

John W. Bartlett, Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING AUGUST 7, 1992

I. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

A. Site Characterization Planning

Field Operations

The Site Manager and Field Operations Center (FOC) staff participated in and provided logistical support for three major tours this reporting period.

Regarding UZ-16 drilling activities with the LM-300 drill rig, Reynolds Electrical & Engineering Co., Inc. (REECo), has cored to a depth of 408.68 feet and reamed to 407.39 feet as of August 4, 1992.

A total of 26.3 feet of core was taken this week and the borehole was reamed from 348.7 feet to 407.39 feet. Final core depth was 408.68 feet. Progress was delayed because of plugging of the dual wall pipe with breccia during reaming and "fishing" operations associated with removal of the 12-1/4 inch reaming bit and stabilizer that were left in the hole. The dual wall pipe was inadvertently dropped after pulling approximately 80 feet off the bottom for a bit change. The bit and stabilizer were successfully removed on the second attempt with no significant impact to borehole quality. As a result of the safety analysis of the pipe release, one of the actuating valves on the driller's console will be relocated and made more inaccessible from the ones routinely used. Approximately two days were required for the fishing operations and reaming had resumed by August 7, 1992.

Revision 3 to job package (JP) 91-9 has been authorized and work initiated on Phase 2 which consists of 12 additional neutron access boreholes. REECo began drilling the first hole N63 with the CME 850 drill rig on August 3, 1992.

Phase 1 drilling was completed on June 12, 1992; 12 neutron-access boreholes were included in Phase 1. Phase 2 activity began on July 31, 1992, with mobilization of CME 850 drilling equipment to borehole USW UZN-63, located in Pagany Wash. Actual drilling will begin on August 3, 1992. Estimated final hole depth is 60 feet.

REECo has begun work on JP 82-12, Quaternary Faulting. They attempted to blade in a northerly access to Busted Butte, to provide a possible trail to the work site for a 4,000 gallon water truck. Because of the rough terrain and topography, they are exploring another area for access.

On August 8, 1992, the Site Manager and members of the FOC staff presented to the Project Manager, Division Directors, and Technical Project Officers the consensus of reviewers on the facilities siting alternatives. The consensus was for developing two areas of the ranch, these being in the J-13 area, relocating the subdock in the J-13 vicinity, and an off-site area located in Amargosa Valley.

Sample Management Facility

Started drilling on USW UZN-63.

Supported Sample Overview Committee meeting on August 4, 1992.

Processed specimens from UZN-53 and UZN-55.

Issue Resolution

The Seismic Hazards Working Group met August 5, 1992, in Las Vegas, Nevada, to prepare a plan to assess seismic hazards on a priority basis. Preparations continue for the Volcanism Issue Technical Exchange with the U.S. Nuclear Regulatory Commission (NRC) scheduled for August 26, 1992.

Annotated Outline (AO) for Mined Geologic Disposal System License Application

The review of Revision 1 of the AO is scheduled to begin August 10, 1992. The comment consolidation meeting will be held August 21, 1992.

Sampling this week was in the Topopah Springs upper lithophysal unit. Coring will continue in this interval next week.

Exploratory Studies Facility (ESF) Task Force Activities

Began design on NRG 6 and SRG 1, ramp alignment boreholes.

Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) - Activity schedules for work breakdown structure (WBS) Elements 1.2.1.1 and 1.2.1.2 have been completed for Mission 2001.

Site Characterization Plan (SCP) Progress Report (PR)

PR 5 was received at the Yucca Mountain Site Characterization Project Office (YMPO) and forwarded to the U.S. Department of Energy/Headquarters (DOE/HQ) on July 31, 1992. PR 6 has received concurrence from RW-1 and is now waiting for documentation from RW-22 to forward on to the Offices of General Counsel and Congressional Programs.

SCP Study Plan (SP) Status

One new SP, 8.3.1.17.4.4, "Quaternary Strike-Slip Faulting Proximal to the Site Within Northeast-Trending Fault Zones," was submitted to YMPO.

STUDY PLAN BREAKDOWN

In Screening Review	1
In YMPO and DOE/HQ Review	0
Awaiting Comment Resolution	12
Awaiting Author Revision	5
In YMPO/HQ Verification Audit	7
Preparing to Submit or Awaiting YMPO Approval	4
Awaiting Submission to NRC	1
NRC Phase 1 Review	14
NRC Acceptance	27
Total	71

SCP/SP Status:

Total SPs Assigned to Cover 106 Studies	103
SPs Not Yet Submitted for Review	38
SPs Submitted for Initial Review	65
Revised SPs Submitted for Review	6
Total SPs Submitted for Review	71

State of Nevada Comments Status:

Received Comments from the State of Nevada	10
Responses Transmitted to the State of Nevada	8

NRC Comments Status:

Received Comments from NRC	14
Responses Transmitted from OGD to DOE/HQ	9

B. Project Planning and Control

Established WBS conversion database and began testing of crosswalking WBS elements and accounts. Developed software to combine interim project WBS dictionary database with current Planning and Control System (PACS) project-level database.

Installed new PACS reporting process and query screens in YMP and participant databases which provides greater capabilities in producing reports.

Continued schedule integration for Mission 2001. Areas of concentration were the integration of the environmental surveys to the surface-disturbing activities.

Conducted briefing with Sandia National Laboratories (SNL) on the Mission 2001 schedule integration exercise in order to receive management buy in on changes to the SNL schedule.

Held meeting with Weston to discuss the status of Yucca Mountain planning, the next revision to the Project Cost Schedule Baseline, and to discuss the methodologies for doing future what-if analyses.

C. Quality Assurance (QA) Implementation

Determination of Importance and Grading Enhancement

Continuation of Existing Process

The transition process from the old to the new continues. According to YMPO direction, participants are no longer submitting QA Grading Reports and the Quality Review Board has completed processing of those Grading Reports submitted prior to July 31, 1992.

Quality (Q) List and Q-List Procedure Development

SNL progress in their Items Important to Waste Isolation and Items Important to Safety activities continues on schedule. Administrative Procedure (AP) 6.17Q training preparations are targeted for completion early in the week of August 10, 1992, with training of the new Assessment Team (AT) targeted for late in that week.

Implementation

Draft Operating Procedures relative to the new AT are in development, targeted to begin QA Procedure 6.2 review on August 17, 1992. The implementation plan for AP 6.17Q continues in approval cycle.

D. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, participated on a panel August 3, 1992, discussing the question, "Should radioactive waste management issues be taught in the public school classrooms?" This panel was part of a two-day public school teachers workshop sponsored by the University of Nevada, Las Vegas (UNLV). John Daly from KTNV-TV ABC, Channel 13, in Las Vegas, was panel moderator. Sherman Frederick, Editor of the Las Vegas Review-Journal, was present to pose questions to the panel and focus issues. Eleven panelists and approximately 30 middle school and high school teachers were in attendance.

Institutional and External Affairs (IEA) staff attended a UNLV Teachers Workshop on the curriculum for the high-level waste education program on August 3, 1992.

IEA staff supported a transportation container exhibit at UNLV on August 3, 1992. Staff also supported a media briefing on the transportation container.

IEA staff developed a paper for Project Manager, Carl Gertz, to be given at the North American Tunneling Conference.

IEA staff developed traveling photo displays for Richard Arnold's cultural resources presentations. Staff also completed petroglyph animal and plant collages for Richard Arnold's display at the FOC.

Carl Gertz gave a general YMP overview presentation at the New Avenues in Crisis Management Conference, held at the Alumni Center of UNLV on August 5, 1992. Tom Statton (CRWMS M&O) also gave a presentation on Risk Assessment and Risk Management.

Carl Gertz gave a general YMP overview presentation to the Rotary Club of Las Vegas on August 6, 1992, at Harrah's Hotel in Las Vegas, Nevada. Approximately 125 people were in attendance.

IEA staff finalized work on the folder, "Why Study Yucca Mountain, Nevada?" and have submitted it for printing.

II. ANALYSIS & VERIFICATION DIVISION

Participated in Geochemistry Integration Team (GIT) teleconference on Monday, August 3, 1992. Topics discussed included the report and recommendations from the Joint GIT/Hydrology Integration Task Force meeting on Preferential Pathways, and planning for the December 1992 meeting on Thermal Loading, colloid workshop, and interaction with ESF design effort.

Reviewed Document Change Proposal (DCP) 64, Revision 1, "Physical System Requirements - Store Waste," and provided comments to YMPO for incorporation into RW-20 Project Change Control Board evaluation.

Prepared RW-22 presentation on DOE Order 5000.3B, "Occurrence Reporting and Processing System."

Staff attended briefing on the Integrated Test Evaluation Task on August 6, 1992, in Las Vegas, Nevada.

Anticipated Activities for the Coming Week

Staff will attend Management Review meeting to discuss and resolve issues related to the Convergence Task, August 11-12, 1992, in Washington, D.C.

Staff will participate in resolution of RW-22 comments on DCP 62 - Revision 2, "OCRWM Systems Engineering Management Plan."

Staff will participate in Expert Judgment Steering Committee Meeting on August 14, 1992 in Las Vegas, Nevada. The objective of the Steering Committee is to develop a DOE workshop on use of expert judgment in the Office of Civilian Radioactive Waste Management (OCRWM) program.

III. GENERAL INFORMATION ITEMS

Los Alamos National Laboratory (Los Alamos)

An article entitled, "Measuring the Age of the Lathrop Wells Volcanic Center at Yucca Mountain," was published in the July 24, 1992, issue of Science magazine. This article is a review of an article written by Brent Turrin et al., in an earlier issue of Science magazine. The article was written by Steven Wells, Bruce Crowe, and Les McFadden.

IV. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are handled by the Speakers Bureau; contact Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are handled by Kevin Rohrer at (702) 794-7769, and tours are handled by Carleen Hill at (702) 794-7375.

Date	Event	Location	YMPO Contact
A. DOE/HQ Meetings			
Friday, August 28	Program Management Meeting	Washington, DC	C. Gertz
B. CRWMS M&O/DOE Meetings			
No significant new meetings.			
C. Internal and DOE/NV Meetings			
No significant new meetings.			
D. NRC Interactions			
Tuesday, August 25	Technical Exchange - Resolution of Volcanism Related Concerns	Video-Conference	T. Bjerstedt
Thursday-Friday, September 17-18	Technical Exchange - Midway Valley and Site Visit	LV/NTS/YM	T. Bjerstedt
Tuesday, September 29	Technical Exchange - Functional Analysis of 10 CFR 60	San Antonio, TX	T. Bjerstedt
Thursday, October 29	Technical Exchange - Total System Performance Assessment	Albuquerque, NM	T. Bjerstedt
Tuesday, November 17	Technical Exchange - Volcanism	Rockville, MD	T. Bjerstedt
Wednesday, November 18	Interaction Planning Meeting	Rockville, MD	T. Bjerstedt

AUG 27 1992

Date	Event	Location	YMPO Contact
E. NWTRB Interactions (P)			
Monday-Tuesday, September 14-15	NWTRB SG&G Panel Meeting	Las Vegas, NV	A. Simmons
Wednesday, September 16	NWTRB SG&G Field Trip	TBD	A. Simmons
Wednesday-Thursday, October 14-15	NWTRB Full Board Meeting	Las Vegas, NV	A. Simmons
Thursday-Friday, October 15-16	NWTRB Panel on SG&G	Las Vegas, NV	A. Simmons

Date	Event	Location	Speaker
F. State and Public Interactions			
Thursday, August 13	U.S. Council of Energy Awareness World Council	Washington, DC	C. Gertz
Friday, August 14	Pretour Briefing Bill Young, DOE/OCRWM	Las Vegas, NV	C. Gertz
Monday, August 31	Nuclear Information & Records Management Association Symposium	San Francisco, CA	C. Gertz
Thursday, September 3	American Business Women's Association	Las Vegas, NV	C. Gertz
Monday, September 14	Daughters of the American Revolution Group	Las Vegas, NV	R. Arnold
Thursday, September 17	American Nuclear Society	Lynchburg, VA	C. Gertz
Friday, September 18	Las Vegas Board of Realtors	Las Vegas, NV	A. Robison
Monday, September 21	Emerging Technologies for Hazardous Waste Management	Atlanta, GA	C. Gertz

Date	Event	Location	Speaker
F. State and Public Interactions (Continued)			
Tuesday, September 29	American Institute of Professional Geologists	Lake Tahoe, NV	J. Younker
Wednesday, October 7	North American Tunneling Conference	Boston, MA	C. Gertz
Thursday, October 8	Massachusetts Institute of Technology (MIT)	Cambridge, MA	C. Gertz
Thursday, October 22	LV Chamber of Commerce	Las Vegas, NV	C. Gertz
Friday, October 30	Colorado School of Mines	Golden, CO	C. Gertz

Date	Event	Location
G. Exhibits Scheduled		
Wednesday-Sunday, August 12-16	Nevada State Fair	Reno, NV
Thursday-Saturday, August 20-22	Nevada League of Cities	Winnemucca, NV
Saturday, August 22	Public Open House (P)	Las Vegas, NV
Friday-Sunday, August 28-30	White Pine County Fair	Ely, NV
Friday-Sunday, September 18-20	Home Show	Las Vegas, NV
Friday-Sunday, September 18-20	Pahrump Harvest Festival	Pahrump, NV

Date	Event	Location
G. Exhibits Scheduled (Continued)		
Saturday-Sunday, September 19-30	Lawrence Livermore National Laboratory 40th Anniversary Family Open House	Livermore, CA
Saturday, September 26	Public Open House (P)	Las Vegas, NV
Sunday-Wednesday, September 27-30	American Institute of Professional Geologists	Lake Tahoe, NV
Friday-Sunday, October 2-11	Jaycees State Fair	Las Vegas, NV
Monday-Friday, October 5-9	Association of Engineering Geologists	Long Beach, CA

Date	Event	Escorts
H. Tours Scheduled		
Saturday, August 22	Public Open House (P)	Various Escorts
Saturday, September 26	Public Open House (P)	Various Escorts
Thursday, October 8	Realtor Association	TBD
Tuesday, October 13	Senior Tripsters	TBD
Friday, October 16	NWTRB	A. Simmons
Saturday, October 17	Public Open House (P)	Various Escorts
Thursday, October 22	ACNW Yucca Mountain & NTS	T. Bjerstedt

Date	Event	Escorts
H. Tours Scheduled (Continued)		
Friday, October 23	GIS	T. Bjerstedt
Wednesday, November 18	Public Open House (P)	Various Escorts
Saturday, December 12	Public Open House (P)	Various Escorts

Jr Maxwell Blanchard
Carl P. Gertz
Project Manager

YMP:VFI-4877

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

AUG 27 1992

John W. Bartlett, Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING AUGUST 21, 1992

I. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

A. Site Characterization Planning

Field Operations

The Site Manager and Field Operations Center (FOC) staff participated in and provided logistical support for four major tours, including tours for Greenpeace and personnel from the U.S. Nuclear Regulatory Commission (NRC).

Regarding Job Package (JP) 91-9, Neutron Access Boreholes, USW UZN-33 was completed to a depth of 75.01 feet. Work commenced on USW UZN-34 and, as of August 19, 1992, is at a depth of 5 feet.

Regarding JP 92-7, Fran Ridge Pit Mapping, the authorization to proceed was signed and issued.

Work commenced on JP 92-12, Quaternary Faulting within the site area.

Sample Management Facility

Processing of core and cuttings from UE25 UZ-16 continued. Drilling was initiated on USW UZN-34 and completed on USW UZN-33. Processing of samples from UE25 UZN-63, UE25 UZN-33, and UE25 UZN-34 continued.

Site Investigations

Quaternary Faulting Within the Site Area Investigation (JP 92-12)

Clearing of pavements at Busted Butte, which began on August 4, 1992, has been completed using hand labor and a jet of air with a small amount of water added to control fugitive dust. As of August 21, 1992, three of the four pavement surfaces have been cleared. The fault zone and offset stratigraphic horizons and soil horizons have been exposed in pavements one and two.

Existing Trenches CF1 and CF8 in Crater Flat were deepened and cleared to facilitate detailed mapping. Trench SC1 in Crater Flat was excavated across the Solitario Canyon fault.

Neutron-Access Boreholes

The second of twelve planned Phase 2 neutron-access boreholes was completed as of August 20, 1992, and drilling of a third borehole has begun. The second hole (USW UZN-33), which is located in Drill Hole Wash, reached a depth of 75.01 feet and bottomed in the top of the Topopah Spring unit. Drilling of a companion hole (USW UZN-34), which is located several feet away from USW UZN-33, is underway and it will likely be completed by next week.

USW UZ-16 Borehole (JP 92-3 and 92-4)

A total of 85.4 feet of core was taken in the interval from 468.63 feet to 554.02 feet this week, and the hole was reamed from 468.75 feet to 538.97 feet. It was determined from the core resolution meeting on Monday, August 17, 1992, that only .05 feet of core was lost by the overream the previous Friday, August 14, 1992. Minor delays were incurred because of weather and miscellaneous equipment down time. Modifications to the Hazvac vacuum truck are planned for next week.

Sampling this week continues in the Topopah Springs upper lithophysal unit. The section appears to be less fractured and broken as noted by the improved core recovery. Coring will continue in this interval next week.

Regulatory Interactions

Mined Geologic Disposal System (MGDS) Annotated Outline (AO)

Comments on the MGDS AO, Revision 1, were transmitted to RW-331 on August 17, 1992. The U.S. Department of Energy (DOE) Comment Consolidation meeting was scheduled for August 21, 1992, at the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) offices in Vienna, Virginia. A presentation on InfoSTREAMS was also planned for the same day; the MGDS will serve as the pilot for InfoSTREAMS.

Issue Resolution

The plan to prioritize site characterization activities supporting Seismic Hazard Issue Resolution has been completed and was transmitted to John Bartlett on August 14, 1992. The Issue Resolution Steering Group has a video conference scheduled for August 26, 1992, at 10 a.m. PST; the status of high priority issues will be discussed.

Exploratory Studies Facility (ESF) Task Force Activities

The Independent Technical Review of the 90 percent complete ESF Design Package 1A concluded on August 14, 1992. The verification process is continuing with some unresolved comments. Overall, the review covered 186 drawings, 45 analyses, and 115 specifications.

Site Characterization Plan (SCP) Progress Report (PR)

Concurrence on PR 6 was received from the Office of Civilian Radioactive Waste Management (OCRWM). It is presently in the Offices of General Counsel and Congressional Programs at DOE/Headquarters (HQ) for concurrence.

SCP Study Plan (SP) Status

STUDY PLAN BREAKDOWN

In Screening Review	0
In Yucca Mountain Site Characterization Project Office (YMPO) and DOE/HQ Review	1
Awaiting Comment Resolution	12
Awaiting Author Revision	5
In YMPO/HQ Verification Audit	5
Preparing to Submit or Awaiting YMPO Approval	4
Awaiting Submission to NRC	3
NRC Phase 1 Review	14
NRC Acceptance	27
Total	71

SCP/SP Status:

Total SPs Assigned to Cover 106 Studies	103
SPs Not Yet Submitted for Review	38
SPs Submitted for Initial Review	65
Revised SPs Submitted for Review	6
Total SPs Submitted for Review	71

State of Nevada Comments Status:

Received Comments from the State of Nevada	10
Responses Transmitted to the State of Nevada	8

NRC Comments Status:

Received Comments from NRC	14
Responses Transmitted from OGD to DOE/HQ	9

B. Project Planning and Control

The July 1992 status and Cost Performance Reports (CPRs) were produced and distributed to the participants.

The project level data base was rolled and project CPRs and status reports were produced for the YMP Project Manager, Division Directors, and project work breakdown structure (PWBS) element managers.

Variance Analysis Reports of the July 1992 status data were produced at the third level for Division Directors.

A Planning and Control System Responsibility Assignment Matrix was prepared based on the interim PWBS elements, which list PWBS element managers where additional assignments are needed and where no changes occur.

C. Quality Assurance (QA) Implementation

H. Tours Scheduled

Determination of Importance and Grading Enhancement

Continuation of Existing Process

Close-out of all necessary actions under Administrative Procedure (AP) 6.17Q, Revision 0, have been completed.

Quality (Q) List and Q-List Procedure Development

Sandia National Laboratories' progress in their Items Important to Waste Isolation and Items Important to Safety activities continues. AP 6.17Q training preparations were completed and training of six members of the new assessment team (AT) was conducted on August 13, 1992. The YMPO identification of controls procedure,

formerly projected as Quality Management Procedure 05-03, will be an Implementing Line Procedure. The procedure is in final draft and it is targeted for delivery to the Plans and Procedures Division for processing next week. Required training will follow.

Management Control (MC) List and Procedure Development

Transmittal of the MC List Plan will be effected following discussions with YMPO, which is presently scheduled for August 19, 1992.

Implementation

Draft Operating Procedures relative to the new AT are in development. Approval signatures were obtained for the implementation plan for AP 6.17Q (YMP/92-25). The plan is in the publication cycle.

D. Public Outreach and Institutional Activities

The Institutional and External Affairs (IEA) staff coordinated a schedule for the transportation container exhibit as part of the public education effort to provide Nevada residents with information regarding nuclear waste transportation. They also developed handouts, posters, ads, and a transportation fact sheet to accompany the cask exhibit. The CRWMS M&O staff assisted in preparation of materials for use with the exhibit. IEA personnel staffed the exhibit in Las Vegas, Nevada, at the Southern Nevada Building Trades Council on August 17, 1992, and at Delta Nu Alpha Transportation Fraternity on August 18, 1992.

Carl Gertz, Project Manager, gave a general overview posttour briefing to Thomas Barton of the Ames Laboratory on August 18, 1992, at the Las Vegas Yucca Mountain Information Office (YMIO). Approximately seven people attended. Mr. Barton toured various areas of the Nevada Test Site.

Carl Gertz gave a Yucca Mountain Program status at the DOE Nevada Field Office (DOE/NV) Managers' Monthly Program Review on August 19, 1992. DOE/NV principal staff, their representatives, and employees attended.

A tour to Yucca Mountain, Nevada, was conducted on August 21, 1992, for Forrest Remick, Commissioner of NRC. Approximately 15-20 people attended a general overview pretour briefing, which was provided by Carl Gertz, at the Las Vegas YMIO.

A tour to Yucca Mountain was also conducted on August 21, 1992, for coordinators of Greenpeace. Carl Gertz gave a general overview pretour briefing to eight attendees at the Las Vegas YMIO.

The IEA staff set up and staffed a 10' x 10' display and attended meetings at the Nevada League of Cities conference of city officials in Winnemucca, Nevada, August 20-22, 1992. Approximately 150-200 people visited the display.

The IEA staff printed 20 biographies of YMP personnel to be distributed for speaker presentations, exhibits, update meetings, and conferences. The first 100,000 sheets of recycled paper were printed with the DOE logo and new YMP signature line. The IEA staff submitted the FOC fact sheet to be printed on recycled paper.

The IEA staff developed a paper for Carl Gertz to submit at the University of Nevada, Las Vegas, Management Crisis Seminar proceedings. Five papers are being developed for submission to the 1993 International High-Level Radioactive Waste Management Conference.

An informational mailer that highlights upcoming tours, speaker presentations, exhibits, and the fall speaker series was sent to individuals listed on the YMP mailing list. The IEA staff is developing notices for the speaker series.

IEA staff coordinated arrangements for Lander County, Nevada, officials to tour the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, on September 1, 1992.

II. ANALYSIS & VERIFICATION DIVISION

The staff attended the American Society of Civil Engineers symposium on Dynamic Analysis and Design Considerations for High-Level Nuclear Waste Repositories August 19-20, 1992, in San Francisco, California.

The staff attended three meetings in Las Vegas, Nevada: an ESF Test Committee meeting on August 18, 1992; a Thermal Loading meeting August 19-20, 1992; and an Interface Working Group meeting August 20-21, 1992.

III. GENERAL INFORMATION ITEMS

CRWMS M&O

Readiness Review Planning has been initiated in five areas: Waste Package Advanced Conceptual Design (ACD), Repository ACD, ESF Construction Management, ESF Design Transition, and OCRWM Construction Readiness Review.

LOS ALAMOS NATIONAL LABORATORY (LOS ALAMOS)

The Los Alamos Test Coordination Office held the ESF Test Committee meeting on August 18, 1992, in Las Vegas, Nevada. Issues discussed included current status of YMP, sample handling, and experiences of other investigators (Basalt Waste Isolation Project and WIPP) in conducting heater tests in underground facilities.

Fran Ridge pit mapping test planning and job packages have been approved and are under project document control.

LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL)

A sample holder was designed to be used for measuring electrical resistivity as a function of moisture content at elevated temperatures. The purpose of the measurement is to generate calibration curves of electrical resistivity of Topopah Spring Tuff samples with respect to moisture content, so that the laboratory and field determined resistivity can be interpreted with respect to degree of water saturation.

IV. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are handled by the Speakers Bureau; contact Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are handled by Kevin Rohrer at (702) 794-7769, and tours are handled by Carleen Hill at (702) 794-7375.

Date	Event	Location	YMPO Contact
A. DOE/HQ Meetings			
Friday, August 28	Program Management Meeting	Washington, DC	C. Gertz
Wednesday-Friday, November 18-20 (Tentative)	Workshop on Expert Judgment	Las Vegas, NV	A. Simmons
B. CRWMS M&O/DOE Meetings			
Wednesday, August 26	CRWMS M&O Program Managment Review	Vienna, VA	C. Gertz

AUG 27 1992

Date	Event	Location	YMPO Contact
C. Internal and DOE/NV Meetings			
Wednesday, August 19	Managers Monthly Program Review	Las Vegas, NV	C. Gertz
D. NRC Interactions (P)			
Tuesday, August 25	Technical Exchange - Resolution of Volcanism Related Concerns	Video Conference	T. Bjerstedt
Thursday-Friday, September 17-18	Site Visit: Midway Valley	LV/NTS/YM	T. Bjerstedt
Tuesday, September 29	Technical Exchange - Functional Analysis of 10 CFR 60	San Antonio, TX	T. Bjerstedt
Thursday, October 29	Technical Exchange - Total System Performance Assessment	Albuquerque, NM	T. Bjerstedt
Tuesday, November 17	Technical Exchange - Volcanism	Rockville, MD	T. Bjerstedt
Wednesday, November 18	Interaction Planning Meeting	Rockville, MD	T. Bjerstedt
E. NWTRB Interactions (P)			
Monday-Tuesday, September 14-15	NWTRB SG&G Panel Meeting	Las Vegas, NV	J. Cooper
Wednesday, September 16	NWTRB SG&G Field Trip	TBD	J. Cooper
Wednesday-Thursday, October 14-15	NWTRB Full Board Meeting	Las Vegas, NV	J. Cooper
Friday, October 16	NWTRB Yucca Mountain Site Tour	Las Vegas, NV	J. Cooper
Wednesday-Friday, November 4-6 (Tentative)	NWTRB SG&G Panel Meeting	Denver, CO	J. Cooper

AUG 27 1997

Date	Event	Location	YMPO Contact
E. NWTRB Interactions (P) (Continued)			
1993			
Tuesday-Wednesday, January 5-6	NWTRB Full Board Meeting	Arlington, VA	J. Cooper
February or March TBD	NWTRB HG&G Panel Meeting	TBD	J. Cooper
Tuesday-Friday, April 20-23	NWTRB Full Board Meeting	Reno, NV	J. Cooper
Tuesday, June 1	NWTRB International Trip	TBD	J. Cooper
Monday-Thursday, July 12-15	NWTRB Full Board Meeting	Denver, CO	J. Cooper
Tuesday-Friday, October 19-22	NWTRB Full Board Meeting	Las Vegas, NV	J. Cooper

Date	Event	Location	Speaker
F. State and Public Interactions			
Thursday, August 27	Southwest Network	Las Vegas, NV	B. Andrews
Monday, August 31	Nuclear Information & Records Management Association Symposium	San Francisco, CA	C. Gertz
Wednesday, September 2	Faye Galloway Elementary School	Las Vegas, NV	R. Arnold
Thursday, September 3	American Business Women's Association	Las Vegas, NV	C. Gertz
Monday, September 14	Daughters of the American Revolution Group	Las Vegas, NV	R. Arnold

Date	Event	Location	Speaker
F. State and Public Interactions (Continued)			
Thursday, September 17	American Nuclear Society	Lynchburg, VA	C. Gertz
Friday, September 18	Las Vegas Board of Realtors	Las Vegas, NV	A. Robison
Monday, September 21	Emerging Technologies for Hazardous Waste Management	Atlanta, GA	C. Gertz
Tuesday, September 29	American Institute of Professional Geologists (AIPG)	Lake Tahoe, NV	J. Younker
Wednesday, October 7	North American Tunneling Conference	Boston, MA	C. Gertz
Thursday, October 8	Massachusetts Institute of Technology	Cambridge, MA	C. Gertz
Wednesday, October 14	American Society of Civil Engineers & National Society of Professional Engineers	Las Vegas, NV	C. Gertz
Thursday, October 22	LV Chamber of Commerce	Las Vegas, NV	C. Gertz
Friday, October 30	Colorado School of Mines	Golden, CO	C. Gertz

Date	Event	Location
G. Exhibits Scheduled		
Saturday, August 22	Public Open House (P)	Las Vegas, NV
Friday-Sunday, August 28-30	White Pine County Fair	Ely, NV
Friday-Sunday, September 18-20	Home Show	Las Vegas, NV

Date	Event	Location
G. Exhibits Scheduled (Continued)		
Friday-Sunday, September 18-20	Pahrump Harvest Festival	Pahrump, NV
Saturday-Sunday, September 19-20	LLNL 40th Anniversary Family Open House	Livermore, CA
Saturday, September 26	Public Open House (P)	Las Vegas, NV
Sunday-Wednesday, September 27-30	AIPG	Lake Tahoe, NV
Friday-Sunday, October 2-11	Jaycees State Fair	Las Vegas, NV
Monday-Friday, October 5-9	Association of Engineering Geologists	Long Beach, CA

Date	Event	Escorts
H. Tours Scheduled		
Saturday, August 22	Public Open House (P)	Various Escorts
Tuesday, August 25	Institute for Radiochemie	A. Simmons
Wednesday, August 26	Idaho Falls Post Kevin Richard	G. Fisher
Saturday, August 29	Native American Youths	V. Best G. Fasano
Wednesday, September 16	NWTRB	J. Cooper
Friday, September 18	NARUC	A. Robison
Wednesday, September 23	Beatty Chamber of Commerce	S. Tarr

H. Tours Scheduled (Continued)

Date	Event	Escorts
Saturday, September 26	Public Open House (P)	Various Escorts
Tuesday, October 6	Western Region Group	TBD
Thursday, October 8	Realtor Association (Las Vegas Board of Realtors)	TBD
Tuesday, October 13	Senior Tripsters	TBD

H. Tours Scheduled

Friday, October 16	NWTRB	J. Cooper
Saturday, October 17	Public Open House (P)	Various Escorts
Thursday, October 22	Advisory Committee on Nuclear Waste	TBD
Wednesday, November 18	Public Open House (P)	Various Escorts
Saturday, December 12	Public Open House (P)	Various Escorts

for Maxwell Blanchard
Carl P. Gertz
Project Manager

YMP:VFI-5168

rec'd with letter dtd. 9/3/92
9209140330

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

AUG 27 1992

John W. Bartlett, Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING AUGUST 7, 1992

I. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

A. Site Characterization Planning

Field Operations

The Site Manager and Field Operations Center (FOC) staff participated in and provided logistical support for three major tours this reporting period.

Regarding UZ-16 drilling activities with the LM-300 drill rig, Reynolds Electrical & Engineering Co., Inc. (REECo), has cored to a depth of 408.68 feet and reamed to 407.39 feet as of August 4, 1992.

A total of 26.3 feet of core was taken this week and the borehole was reamed from 348.7 feet to 407.39 feet. Final core depth was 408.68 feet. Progress was delayed because of plugging of the dual wall pipe with breccia during reaming and "fishing" operations associated with removal of the 12-1/4 inch reaming bit and stabilizer that were left in the hole. The dual wall pipe was inadvertently dropped after pulling approximately 80 feet off the bottom for a bit change. The bit and stabilizer were successfully removed on the second attempt with no significant impact to borehole quality. As a result of the safety analysis of the pipe release, one of the actuating valves on the driller's console will be relocated and made more inaccessible from the ones routinely used. Approximately two days were required for the fishing operations and reaming had resumed by August 7, 1992.

Revision 3 to job package (JP) 91-9 has been authorized and work initiated on Phase 2 which consists of 12 additional neutron access boreholes. REECo began drilling the first hole N63 with the CME 850 drill rig on August 3, 1992.

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Phase 1 drilling was completed on June 12, 1992; 12 neutron-access boreholes were included in Phase 1. Phase 2 activity began on July 31, 1992, with mobilization of CME 850 drilling equipment to borehole USW UZN-63, located in Pagany Wash. Actual drilling will begin on August 3, 1992. Estimated final hole depth is 60 feet.

REECo has begun work on JP 82-12, Quaternary Faulting. They attempted to blade in a northerly access to Busted Butte, to provide a possible trail to the work site for a 4,000 gallon water truck. Because of the rough terrain and topography, they are exploring another area for access.

On August 8, 1992, the Site Manager and members of the FOC staff presented to the Project Manager, Division Directors, and Technical Project Officers the consensus of reviewers on the facilities siting alternatives. The consensus was for developing two areas of the ranch, these being in the J-13 area, relocating the subdock in the J-13 vicinity, and an off-site area located in Amargosa Valley.

Sample Management Facility

Started drilling on USW UZN-63.

Supported Sample Overview Committee meeting on August 4, 1992.

Processed specimens from UZN-53 and UZN-55.

Issue Resolution

The Seismic Hazards Working Group met August 5, 1992, in Las Vegas, Nevada, to prepare a plan to assess seismic hazards on a priority basis. Preparations continue for the Volcanism Issue Technical Exchange with the U.S. Nuclear Regulatory Commission (NRC) scheduled for August 26, 1992.

Annotated Outline (AO) for Mined Geologic Disposal System License Application

The review of Revision 1 of the AO is scheduled to begin August 10, 1992. The comment consolidation meeting will be held August 21, 1992.

Sampling this week was in the Topopah Springs upper lithophysal unit. Coring will continue in this interval next week.

Exploratory Studies Facility (ESF) Task Force Activities

Began design on NRG 6 and SRG 1, ramp alignment boreholes.

Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) - Activity schedules for work breakdown structure (WBS) Elements 1.2.1.1 and 1.2.1.2 have been completed for Mission 2001.

Site Characterization Plan (SCP) Progress Report (PR)

PR 5 was received at the Yucca Mountain Site Characterization Project Office (YMPO) and forwarded to the U.S. Department of Energy/Headquarters (DOE/HQ) on July 31, 1992. PR 6 has received concurrence from RW-1 and is now waiting for documentation from RW-22 to forward on to the Offices of General Counsel and Congressional Programs.

SCP Study Plan (SP) Status

One new SP, 8.3.1.17.4.4, "Quaternary Strike-Slip Faulting Proximal to the Site Within Northeast-Trending Fault Zones," was submitted to YMPO.

STUDY PLAN BREAKDOWN

In Screening Review	1
In YMPO and DOE/HQ Review	0
Awaiting Comment Resolution	12
Awaiting Author Revision	5
In YMPO/HQ Verification Audit	7
Preparing to Submit or Awaiting YMPO Approval	4
Awaiting Submission to NRC	1
NRC Phase 1 Review	14
NRC Acceptance	27
Total	71

SCP/SP Status:

Total SPs Assigned to Cover 106 Studies	103
SPs Not Yet Submitted for Review	38
SPs Submitted for Initial Review	65
Revised SPs Submitted for Review	6
Total SPs Submitted for Review	71

State of Nevada Comments Status:

Received Comments from the State of Nevada	10
Responses Transmitted to the State of Nevada	8

NRC Comments Status:

Received Comments from NRC	14
Responses Transmitted from OGD to DOE/HQ	9

B. Project Planning and Control

Established WBS conversion database and began testing of crosswalking WBS elements and accounts. Developed software to combine interim project WBS dictionary database with current Planning and Control System (PACS) project-level database.

Installed new PACS reporting process and query screens in YMP and participant databases which provides greater capabilities in producing reports.

Continued schedule integration for Mission 2001. Areas of concentration were the integration of the environmental surveys to the surface-disturbing activities.

Conducted briefing with Sandia National Laboratories (SNL) on the Mission 2001 schedule integration exercise in order to receive management buy in on changes to the SNL schedule.

Held meeting with Weston to discuss the status of Yucca Mountain planning, the next revision to the Project Cost Schedule Baseline, and to discuss the methodologies for doing future what-if analyses.

C. Quality Assurance (QA) Implementation

Determination of Importance and Grading Enhancement

Continuation of Existing Process

The transition process from the old to the new continues. According to YMPO direction, participants are no longer submitting QA Grading Reports and the Quality Review Board has completed processing of those Grading Reports submitted prior to July 31, 1992.

Quality (Q) List and Q-List Procedure Development

SNL progress in their Items Important to Waste Isolation and Items Important to Safety activities continues on schedule. Administrative Procedure (AP) 6.17Q training preparations are targeted for completion early in the week of August 10, 1992, with training of the new Assessment Team (AT) targeted for late in that week.

Implementation

Draft Operating Procedures relative to the new AT are in development, targeted to begin QA Procedure 6.2 review on August 17, 1992. The implementation plan for AP 6.17Q continues in approval cycle.

D. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, participated on a panel August 3, 1992, discussing the question, "Should radioactive waste management issues be taught in the public school classrooms?" This panel was part of a two-day public school teachers workshop sponsored by the University of Nevada, Las Vegas (UNLV). John Daly from KTNV-TV ABC, Channel 13, in Las Vegas, was panel moderator. Sherman Frederick, Editor of the Las Vegas Review-Journal, was present to pose questions to the panel and focus issues. Eleven panelists and approximately 30 middle school and high school teachers were in attendance.

Institutional and External Affairs (IEA) staff attended a UNLV Teachers Workshop on the curriculum for the high-level waste education program on August 3, 1992.

IEA staff supported a transportation container exhibit at UNLV on August 3, 1992. Staff also supported a media briefing on the transportation container.

IEA staff developed a paper for Project Manager, Carl Gertz, to be given at the North American Tunneling Conference.

IEA staff developed traveling photo displays for Richard Arnold's cultural resources presentations. Staff also completed petroglyph animal and plant collages for Richard Arnold's display at the FOC.

Carl Gertz gave a general YMP overview presentation at the New Avenues in Crisis Management Conference, held at the Alumni Center of UNLV on August 5, 1992. Tom Statton (CRWMS M&O) also gave a presentation on Risk Assessment and Risk Management.

Carl Gertz gave a general YMP overview presentation to the Rotary Club of Las Vegas on August 6, 1992, at Harrah's Hotel in Las Vegas, Nevada. Approximately 125 people were in attendance.

IEA staff finalized work on the folder, "Why Study Yucca Mountain, Nevada?" and have submitted it for printing.

II. ANALYSIS & VERIFICATION DIVISION

Participated in Geochemistry Integration Team (GIT) teleconference on Monday, August 3, 1992. Topics discussed included the report and recommendations from the Joint GIT/Hydrology Integration Task Force meeting on Preferential Pathways, and planning for the December 1992 meeting on Thermal Loading, colloid workshop, and interaction with ESF design effort.

Reviewed Document Change Proposal (DCP) 64, Revision 1, "Physical System Requirements - Store Waste," and provided comments to YMPO for incorporation into RW-20 Project Change Control Board evaluation.

Prepared RW-22 presentation on DOE Order 5000.3B, "Occurrence Reporting and Processing System."

Staff attended briefing on the Integrated Test Evaluation Task on August 6, 1992, in Las Vegas, Nevada.

Anticipated Activities for the Coming Week

Staff will attend Management Review meeting to discuss and resolve issues related to the Convergence Task, August 11-12, 1992, in Washington, D.C.

Staff will participate in resolution of RW-22 comments on DCP 62 - Revision 2, "OCRWM Systems Engineering Management Plan."

Staff will participate in Expert Judgment Steering Committee Meeting on August 14, 1992 in Las Vegas, Nevada. The objective of the Steering Committee is to develop a DOE workshop on use of expert judgment in the Office of Civilian Radioactive Waste Management (OCRWM) program.

III. GENERAL INFORMATION ITEMS

Los Alamos National Laboratory (Los Alamos)

An article entitled, "Measuring the Age of the Lathrop Wells Volcanic Center at Yucca Mountain," was published in the July 24, 1992, issue of Science magazine. This article is a review of an article written by Brent Turrin et al., in an earlier issue of Science magazine. The article was written by Steven Wells, Bruce Crowe, and Les McFadden.

IV. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are handled by the Speakers Bureau; contact Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are handled by Kevin Rohrer at (702) 794-7769, and tours are handled by Carleen Hill at (702) 794-7375.

Date	Event	Location	YMPO Contact
A. DOE/HQ Meetings			
Friday, August 28	Program Management Meeting	Washington, DC	C. Gertz
B. CRWMS M&O/DOE Meetings			
No significant new meetings.			
C. Internal and DOE/NV Meetings			
No significant new meetings.			
D. NRC Interactions			
Tuesday, August 25	Technical Exchange - Resolution of Volcanism Related Concerns	Video-Conference	T. Bjerstedt
Thursday-Friday, September 17-18	Technical Exchange - Midway Valley and Site Visit	LV/NTS/YM	T. Bjerstedt
Tuesday, September 29	Technical Exchange - Functional Analysis of 10 CFR 60	San Antonio, TX	T. Bjerstedt
Thursday, October 29	Technical Exchange - Total System Performance Assessment	Albuquerque, NM	T. Bjerstedt
Tuesday, November 17	Technical Exchange - Volcanism	Rockville, MD	T. Bjerstedt
Wednesday, November 18	Interaction Planning Meeting	Rockville, MD	T. Bjerstedt

Date	Event	Location	YMPO Contact
E. NWTRB Interactions (P)			
Monday-Tuesday, September 14-15	NWTRB SG&G Panel Meeting	Las Vegas, NV	A. Simmons
Wednesday, September 16	NWTRB SG&G Field Trip	TBD	A. Simmons
Wednesday-Thursday, October 14-15	NWTRB Full Board Meeting	Las Vegas, NV	A. Simmons
Thursday-Friday, October 15-16	NWTRB Panel on SG&G	Las Vegas, NV	A. Simmons

Date	Event	Location	Speaker
F. State and Public Interactions			
Thursday, August 13	U.S. Council of Energy Awareness World Council	Washington, DC	C. Gertz
Friday, August 14	Pretour Briefing Bill Young, DOE/OCRWM	Las Vegas, NV	C. Gertz
Monday, August 31	Nuclear Information & Records Management Association Symposium	San Francisco, CA	C. Gertz
Thursday, September 3	American Business Women's Association	Las Vegas, NV	C. Gertz
Monday, September 14	Daughters of the American Revolution Group	Las Vegas, NV	R. Arnold
Thursday, September 17	American Nuclear Society	Lynchburg, VA	C. Gertz
Friday, September 18	Las Vegas Board of Realtors	Las Vegas, NV	A. Robison
Monday, September 21	Emerging Technologies for Hazardous Waste Management	Atlanta, GA	C. Gertz

Date	Event	Location	Speaker
F. State and Public Interactions (Continued)			
Tuesday, September 29	American Institute of Professional Geologists	Lake Tahoe, NV	J. Younker
Wednesday, October 7	North American Tunneling Conference	Boston, MA	C. Gertz
Thursday, October 8	Massachusetts Institute of Technology (MIT)	Cambridge, MA	C. Gertz
Thursday, October 22	LV Chamber of Commerce	Las Vegas, NV	C. Gertz
Friday, October 30	Colorado School of Mines	Golden, CO	C. Gertz

Date	Event	Location
G. Exhibits Scheduled		
Wednesday-Sunday, August 12-16	Nevada State Fair	Reno, NV
Thursday-Saturday, August 20-22	Nevada League of Cities	Winnemucca, NV
Saturday, August 22	Public Open House (P)	Las Vegas, NV
Friday-Sunday, August 28-30	White Pine County Fair	Ely, NV
Friday-Sunday, September 18-20	Home Show	Las Vegas, NV
Friday-Sunday, September 18-20	Pahrump Harvest Festival	Pahrump, NV

Date	Event	Location
G. Exhibits Scheduled (Continued)		
Saturday-Sunday, September 19-30	Lawrence Livermore National Laboratory 40th Anniversary Family Open House	Livermore, CA
Saturday, September 26	Public Open House (P)	Las Vegas, NV
Sunday-Wednesday, September 27-30	American Institute of Professional Geologists	Lake Tahoe, NV
Friday-Sunday, October 2-11	Jaycees State Fair	Las Vegas, NV
Monday-Friday, October 5-9	Association of Engineering Geologists	Long Beach, CA

Date	Event	Escorts
H. Tours Scheduled		
Saturday, August 22	Public Open House (P)	Various Escorts
Saturday, September 26	Public Open House (P)	Various Escorts
Thursday, October 8	Realtor Association	TBD
Tuesday, October 13	Senior Tripsters	TBD
Friday, October 16	NWTRB	A. Simmons
Saturday, October 17	Public Open House (P)	Various Escorts
Thursday, October 22	ACNW Yucca Mountain & NTS	T. Bjerstedt

Date	Event	Escorts
H. Tours Scheduled (Continued)		
Friday, October 23	GIS	T. Bjerstedt
Wednesday, November 18	Public Open House (P)	Various Escorts
Saturday, December 12	Public Open House (P)	Various Escorts

Carl P. Gertz
Project Manager

YMP:VFI-4877

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.2
QA: N/A

AUG 27 1992

John W. Bartlett, Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING AUGUST 21, 1992

I. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

A. Site Characterization Planning

Field Operations

The Site Manager and Field Operations Center (FOC) staff participated in and provided logistical support for four major tours, including tours for Greenpeace and personnel from the U.S. Nuclear Regulatory Commission (NRC).

Regarding Job Package (JP) 91-9, Neutron Access Boreholes, USW UZN-33 was completed to a depth of 75.01 feet. Work commenced on USW UZN-34 and, as of August 19, 1992, is at a depth of 5 feet.

Regarding JP 92-7, Fran Ridge Pit Mapping, the authorization to proceed was signed and issued.

Work commenced on JP 92-12, Quaternary Faulting within the site area.

Sample Management Facility

Processing of core and cuttings from UE25 UZ-16 continued. Drilling was initiated on USW UZN-34 and completed on USW UZN-33. Processing of samples from UE25 UZN-63, UE25 UZN-33, and UE25 UZN-34 continued.

Site Investigations

Quaternary Faulting Within the Site Area Investigation (JP 92-12)

Clearing of pavements at Busted Butte, which began on August 4, 1992, has been completed using hand labor and a jet of air with a small amount of water added to control fugitive dust. As of August 21, 1992, three of the four pavement surfaces have been cleared. The fault zone and offset stratigraphic horizons and soil horizons have been exposed in pavements one and two.

Existing Trenches CF1 and CF8 in Crater Flat were deepened and cleared to facilitate detailed mapping. Trench SC1 in Crater Flat was excavated across the Solitario Canyon fault.

Neutron-Access Boreholes

The second of twelve planned Phase 2 neutron-access boreholes was completed as of August 20, 1992, and drilling of a third borehole has begun. The second hole (USW UZN-33), which is located in Drill Hole Wash, reached a depth of 75.01 feet and bottomed in the top of the Topopah Spring unit. Drilling of a companion hole (USW UZN-34), which is located several feet away from USW UZN-33, is underway and it will likely be completed by next week.

USW UZ-16 Borehole (JP 92-3 and 92-4)

A total of 85.4 feet of core was taken in the interval from 468.63 feet to 554.02 feet this week, and the hole was reamed from 468.75 feet to 538.97 feet. It was determined from the core resolution meeting on Monday, August 17, 1992, that only .05 feet of core was lost by the overream the previous Friday, August 14, 1992. Minor delays were incurred because of weather and miscellaneous equipment down time. Modifications to the Hazvac vacuum truck are planned for next week.

Sampling this week continues in the Topopah Springs upper lithophysal unit. The section appears to be less fractured and broken as noted by the improved core recovery. Coring will continue in this interval next week.

Regulatory Interactions

Mined Geologic Disposal System (MGDS) Annotated Outline (AO)

Comments on the MGDS AO, Revision 1, were transmitted to RW-331 on August 17, 1992. The U.S. Department of Energy (DOE) Comment Consolidation meeting was scheduled for August 21, 1992, at the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) offices in Vienna, Virginia. A presentation on InfoSTREAMS was also planned for the same day; the MGDS will serve as the pilot for InfoSTREAMS.

Issue Resolution

The plan to prioritize site characterization activities supporting Seismic Hazard Issue Resolution has been completed and was transmitted to John Bartlett on August 14, 1992. The Issue Resolution Steering Group has a video conference scheduled for August 26, 1992, at 10 a.m. PST; the status of high priority issues will be discussed.

Exploratory Studies Facility (ESF) Task Force Activities

The Independent Technical Review of the 90 percent complete ESF Design Package 1A concluded on August 14, 1992. The verification process is continuing with some unresolved comments. Overall, the review covered 186 drawings, 45 analyses, and 115 specifications.

Site Characterization Plan (SCP) Progress Report (PR)

Concurrence on PR 6 was received from the Office of Civilian Radioactive Waste Management (OCRWM). It is presently in the Offices of General Counsel and Congressional Programs at DOE/Headquarters (HQ) for concurrence.

SCP Study Plan (SP) Status

STUDY PLAN BREAKDOWN

In Screening Review	0
In Yucca Mountain Site Characterization Project Office (YMPO) and DOE/HQ Review	1
Awaiting Comment Resolution	12
Awaiting Author Revision	5
In YMPO/HQ Verification Audit	5
Preparing to Submit or Awaiting YMPO Approval	4
Awaiting Submission to NRC	3
NRC Phase 1 Review	14
NRC Acceptance	27
Total	71

SCP/SP Status:

Total SPs Assigned to Cover 106 Studies	103
SPs Not Yet Submitted for Review	38
SPs Submitted for Initial Review	65
Revised SPs Submitted for Review	6
Total SPs Submitted for Review	71

State of Nevada Comments Status:

Received Comments from the State of Nevada	10
Responses Transmitted to the State of Nevada	8

NRC Comments Status:

Received Comments from NRC	14
Responses Transmitted from OGD to DOE/HQ	9

B. Project Planning and Control

The July 1992 status and Cost Performance Reports (CPRs) were produced and distributed to the participants.

The project level data base was rolled and project CPRs and status reports were produced for the YMP Project Manager, Division Directors, and project work breakdown structure (PWBS) element managers.

Variance Analysis Reports of the July 1992 status data were produced at the third level for Division Directors.

A Planning and Control System Responsibility Assignment Matrix was prepared based on the interim PWBS elements, which list PWBS element managers where additional assignments are needed and where no changes occur.

C. Quality Assurance (QA) Implementation

H. Tours Scheduled

Determination of Importance and Grading Enhancement

Continuation of Existing Process

Close-out of all necessary actions under Administrative Procedure (AP) 6.17Q, Revision 0, have been completed.

Quality (Q) List and Q-List Procedure Development

Sandia National Laboratories' progress in their Items Important to Waste Isolation and Items Important to Safety activities continues. AP 6.17Q training preparations were completed and training of six members of the new assessment team (AT) was conducted on August 13, 1992. The YMPO identification of controls procedure,

formerly projected as Quality Management Procedure 05-03, will be an Implementing Line Procedure. The procedure is in final draft and it is targeted for delivery to the Plans and Procedures Division for processing next week. Required training will follow.

Management Control (MC) List and Procedure Development

Transmittal of the MC List Plan will be effected following discussions with YMPO, which is presently scheduled for August 19, 1992.

Implementation

Draft Operating Procedures relative to the new AT are in development. Approval signatures were obtained for the implementation plan for AP 6.17Q (YMP/92-25). The plan is in the publication cycle.

D. Public Outreach and Institutional Activities

The Institutional and External Affairs (IEA) staff coordinated a schedule for the transportation container exhibit as part of the public education effort to provide Nevada residents with information regarding nuclear waste transportation. They also developed handouts, posters, ads, and a transportation fact sheet to accompany the cask exhibit. The CRWMS M&O staff assisted in preparation of materials for use with the exhibit. IEA personnel staffed the exhibit in Las Vegas, Nevada, at the Southern Nevada Building Trades Council on August 17, 1992, and at Delta Nu Alpha Transportation Fraternity on August 18, 1992.

Carl Gertz, Project Manager, gave a general overview posttour briefing to Thomas Barton of the Ames Laboratory on August 18, 1992, at the Las Vegas Yucca Mountain Information Office (YMIO). Approximately seven people attended. Mr. Barton toured various areas of the Nevada Test Site.

Carl Gertz gave a Yucca Mountain Program status at the DOE Nevada Field Office (DOE/NV) Managers' Monthly Program Review on August 19, 1992. DOE/NV principal staff, their representatives, and employees attended.

A tour to Yucca Mountain, Nevada, was conducted on August 21, 1992, for Forrest Remick, Commissioner of NRC. Approximately 15-20 people attended a general overview pretour briefing, which was provided by Carl Gertz, at the Las Vegas YMIO.

A tour to Yucca Mountain was also conducted on August 21, 1992, for coordinators of Greenpeace. Carl Gertz gave a general overview pretour briefing to eight attendees at the Las Vegas YMIO.

The IEA staff set up and staffed a 10' x 10' display and attended meetings at the Nevada League of Cities conference of city officials in Winnemucca, Nevada, August 20-22, 1992. Approximately 150-200 people visited the display.

The IEA staff printed 20 biographies of YMP personnel to be distributed for speaker presentations, exhibits, update meetings, and conferences. The first 100,000 sheets of recycled paper were printed with the DOE logo and new YMP signature line. The IEA staff submitted the FOC fact sheet to be printed on recycled paper.

The IEA staff developed a paper for Carl Gertz to submit at the University of Nevada, Las Vegas, Management Crisis Seminar proceedings. Five papers are being developed for submission to the 1993 International High-Level Radioactive Waste Management Conference.

An informational mailer that highlights upcoming tours, speaker presentations, exhibits, and the fall speaker series was sent to individuals listed on the YMP mailing list. The IEA staff is developing notices for the speaker series.

IEA staff coordinated arrangements for Lander County, Nevada, officials to tour the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, on September 1, 1992.

II. ANALYSIS & VERIFICATION DIVISION

The staff attended the American Society of Civil Engineers symposium on Dynamic Analysis and Design Considerations for High-Level Nuclear Waste Repositories August 19-20, 1992, in San Francisco, California.

The staff attended three meetings in Las Vegas, Nevada: an ESF Test Committee meeting on August 18, 1992; a Thermal Loading meeting August 19-20, 1992; and an Interface Working Group meeting August 20-21, 1992.

III. GENERAL INFORMATION ITEMS

CRWMS M&O

Readiness Review Planning has been initiated in five areas: Waste Package Advanced Conceptual Design (ACD), Repository ACD, ESF Construction Management, ESF Design Transition, and OCRWM Construction Readiness Review.

LOS ALAMOS NATIONAL LABORATORY (LOS ALAMOS)

The Los Alamos Test Coordination Office held the ESF Test Committee meeting on August 18, 1992, in Las Vegas, Nevada. Issues discussed included current status of YMP, sample handling, and experiences of other investigators (Basalt Waste Isolation Project and WIPP) in conducting heater tests in underground facilities.

Fran Ridge pit mapping test planning and job packages have been approved and are under project document control.

LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL)

A sample holder was designed to be used for measuring electrical resistivity as a function of moisture content at elevated temperatures. The purpose of the measurement is to generate calibration curves of electrical resistivity of Topopah Spring Tuff samples with respect to moisture content, so that the laboratory and field determined resistivity can be interpreted with respect to degree of water saturation.

IV. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are handled by the Speakers Bureau; contact Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are handled by Kevin Rohrer at (702) 794-7769, and tours are handled by Carleen Hill at (702) 794-7375.

Date	Event	Location	YMPO Contact
A. DOE/HQ Meetings			
Friday, August 28	Program Management Meeting	Washington, DC	C. Gertz
Wednesday-Friday, November 18-20 (Tentative)	Workshop on Expert Judgment	Las Vegas, NV	A. Simmons
B. CRWMS M&O/DOE Meetings			
Wednesday, August 26	CRWMS M&O Program Managment Review	Vienna, VA	C. Gertz

Date	Event	Location	YMPO Contact
C. Internal and DOE/NV Meetings			
Wednesday, August 19	Managers Monthly Program Review	Las Vegas, NV	C. Gertz
D. NRC Interactions (P)			
Tuesday, August 25	Technical Exchange - Resolution of Volcanism Related Concerns	Video Conference	T. Bjerstedt
Thursday-Friday, September 17-18	Site Visit: Midway Valley	LV/NTS/YM	T. Bjerstedt
Tuesday, September 29	Technical Exchange - Functional Analysis of 10 CFR 60	San Antonio, TX	T. Bjerstedt
Thursday, October 29	Technical Exchange - Total System Performance Assessment	Albuquerque, NM	T. Bjerstedt
Tuesday, November 17	Technical Exchange - Volcanism	Rockville, MD	T. Bjerstedt
Wednesday, November 18	Interaction Planning Meeting	Rockville, MD	T. Bjerstedt
E. NWTRB Interactions (P)			
Monday-Tuesday, September 14-15	NWTRB SG&G Panel Meeting	Las Vegas, NV	J. Cooper
Wednesday, September 16	NWTRB SG&G Field Trip	TBD	J. Cooper
Wednesday-Thursday, October 14-15	NWTRB Full Board Meeting	Las Vegas, NV	J. Cooper
Friday, October 16	NWTRB Yucca Mountain Site Tour	Las Vegas, NV	J. Cooper
Wednesday-Friday, November 4-6 (Tentative)	NWTRB SG&G Panel Meeting	Denver, CO	J. Cooper

Date	Event	Location	YMPO Contact
E. NWTRB Interactions (P) (Continued)			
1993			
Tuesday-Wednesday, January 5-6	NWTRB Full Board Meeting	Arlington, VA	J. Cooper
February or March TBD	NWTRB HG&G Panel Meeting	TBD	J. Cooper
Tuesday-Friday, April 20-23	NWTRB Full Board Meeting	Reno, NV	J. Cooper
Tuesday, June 1	NWTRB International Trip	TBD	J. Cooper
Monday-Thursday, July 12-15	NWTRB Full Board Meeting	Denver, CO	J. Cooper
Tuesday-Friday, October 19-22	NWTRB Full Board Meeting	Las Vegas, NV	J. Cooper

Date	Event	Location	Speaker
F. State and Public Interactions			
Thursday, August 27	Southwest Network	Las Vegas, NV	B. Andrews
Monday, August 31	Nuclear Information & Records Management Association Symposium	San Francisco, CA	C. Gertz
Wednesday, September 2	Faye Galloway Elementary School	Las Vegas, NV	R. Arnold
Thursday, September 3	American Business Women's Association	Las Vegas, NV	C. Gertz
Monday, September 14	Daughters of the American Revolution Group	Las Vegas, NV	R. Arnold

Date	Event	Location	Speaker
F. State and Public Interactions (Continued)			
Thursday, September 17	American Nuclear Society	Lynchburg, VA	C. Gertz
Friday, September 18	Las Vegas Board of Realtors	Las Vegas, NV	A. Robison
Monday, September 21	Emerging Technologies for Hazardous Waste Management	Atlanta, GA	C. Gertz
Tuesday, September 29	American Institute of Professional Geologists (AIPG)	Lake Tahoe, NV	J. Younker
Wednesday, October 7	North American Tunneling Conference	Boston, MA	C. Gertz
Thursday, October 8	Massachusetts Institute of Technology	Cambridge, MA	C. Gertz
Wednesday, October 14	American Society of Civil Engineers & National Society of Professional Engineers	Las Vegas, NV	C. Gertz
Thursday, October 22	LV Chamber of Commerce	Las Vegas, NV	C. Gertz
Friday, October 30	Colorado School of Mines	Golden, CO	C. Gertz

Date	Event	Location
G. Exhibits Scheduled		
Saturday, August 22	Public Open House (P)	Las Vegas, NV
Friday-Sunday, August 28-30	White Pine County Fair	Ely, NV
Friday-Sunday, September 18-20	Home Show	Las Vegas, NV

Date	Event	Location
G. Exhibits Scheduled (Continued)		
Friday-Sunday, September 18-20	Pahrump Harvest Festival	Pahrump, NV
Saturday-Sunday, September 19-20	LLNL 40th Anniversary Family Open House	Livermore, CA
Saturday, September 26	Public Open House (P)	Las Vegas, NV
Sunday-Wednesday, September 27-30	AIPG	Lake Tahoe, NV
Friday-Sunday, October 2-11	Jaycees State Fair	Las Vegas, NV
Monday-Friday, October 5-9	Association of Engineering Geologists	Long Beach, CA

Date	Event	Escorts
H. Tours Scheduled		
Saturday, August 22	Public Open House (P)	Various Escorts
Tuesday, August 25	Institute for Radiochemie	A. Simmons
Wednesday, August 26	Idaho Falls Post Kevin Richard	G. Fisher
Saturday, August 29	Native American Youths	V. Best G. Fasano
Wednesday, September 16	NWTRB	J. Cooper
Friday, September 18	NARUC	A. Robison
Wednesday, September 23	Beatty Chamber of Commerce	S. Tarr

H. Tours Scheduled (Continued)

Date	Event	Escorts
Saturday, September 26	Public Open House (P)	Various Escorts
Tuesday, October 6	Western Region Group	TBD
Thursday, October 8	Realtor Association (Las Vegas Board of Realtors)	TBD
Tuesday, October 13	Senior Tripsters	TBD

H. Tours Scheduled

Friday, October 16	NWTRB	J. Cooper
Saturday, October 17	Public Open House (P)	Various Escorts
Thursday, October 22	Advisory Committee on Nuclear Waste	TBD
Wednesday, November 18	Public Open House (P)	Various Escorts
Saturday, December 12	Public Open House (P)	Various Escorts

for Maxwell Blanchard
Carl P. Gertz
Project Manager

YMP:VFI-5168

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3.5
QA: N/A

AUG 28 1992

Carl H. Johnson, State of Nevada, Carson City, NV
Phillip Niedzielski-Eichner, Nye County, Chantilly, VA
Dennis A. Bechtel, Clark County, Las Vegas, NV
Albert C. Douglas, City of Las Vegas, Las Vegas, NV
Paul T. Prestholt, NRC, Las Vegas, NV

DAILY OPERATIONS REPORTS AND WEEKLY INTERACTIONS REPORT

Enclosed for your information are copies of the Daily Operations Reports for Yucca Mountain Site Characterization Project drill holes UE-25 UZ16, USW UZ N34, and USW UZ N33 (enclosure 1). These reports were prepared by Raytheon Services Nevada and cover August 17-21, 1992.

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Copies of the field test coordinator's reports (enclosure 3) summarizing activities of the previous week and a forecast of the activities planned for the current week are also included for your information.

If you need additional information regarding these reports, please contact Uel S. Clanton at (702) 794-7943.

for J. Russell Dyer, Director
Regulatory & Site Evaluation Division

RSED:USC-5259

Enclosures:
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2. NRC Weekly Interactions Calendar
3. Field Test Coordinator's Reports

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RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 24, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Coring
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 21, 1992 (Rig Day 62)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0827	Service Rig and Equipment.
0827 - 1130	Continue ream cycle # 53 from 589.26' - 618.98'. Took ream samples from 609.7'- 610.7'.
1130 - 1200	Lunch.
1200 - 1255	Rigged up to start coring.
1155 - 1400	Core run # 144 from 619.06'- 622.36', Rec 3.2', 36 min.
1400 - 1520	Core run # 145 from 622.36'- 626.69', Rec 4.3', 54 min.
1520 - 1550	Core run # 146 from 626.69'- 627.46', Rec 0.8', 13 min.
1550 - 1630	Shut down and secure rig.

CORING: Average air rate: 465 SCFM
Average vacuum rate: 1074 SCFM

REAMING: Average air rate: 1128 SCFM
Average vacuum rate: 1236 SCFM

Ending Depth:	Cored 627.46'	Reamed 618.98'	Drilled 0
Daily Footage:	Cored 8.40'	Reamed 29.72'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 8-REECO; 3-USGS; 4-SMF; 4-Visitors; DOE-1.

Field Report Prepared By: David Putnam
Office Report Prepared By: David Putnam

ENCLOSURE 1

RAYTHEON SERVICES NEVADA

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Field Report Prepared By: David Putnam
Office Report Prepared By: David Putnam

EXHIBIT 1

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

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Field Report Prepared By: David Putnam
Office Report Prepared By: David Putnam

ENCLOSURE 1

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 24, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Coring

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 24, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Coring
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 21, 1992 (Rig Day 4)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service and start up rig.
0830 - 0855	Core run #10 from 45.59' - 49.48' (4 min.) Rec. 0.0'.
0855 - 0934	Pull out of the hole with core rods. Make up drive sampler and trip in hole with drive sampler.
0934 - 0959	Drive sample # 9 from 49.48' - 49.71' (4 min.) Rec. 0.2'.
0959 - 1016	Trip out of the hole with drive sampler, change bits, remove RSN# 30, and make up RSN#32, Drag bit, SN# 20, 8 tungsten carbide cutters, 8 open face airways. Trip in hole with core rods.
1016 - 1109	Core run #11 from 49.71' - 53.78' (20 min.) Rec. 4.1'.
1109 - 1136	Core run #12 from 53.78' - 56.38' (19 min.) Rec. 2.2'.
1136 - 1200	Pull out of hole to change bits, Remove RSN#32, make up RSN#30, trip in hole, tag 10' of fill.
1200 - 1230	Lunch
1230 - 1319	Trip out of the hole with core rods and trip in hole with Odex hammer.
1319 - 1344	Ream cycle #7 from 45.59' - 56.38'.
1344 - 1402	Pull out of the hole with Odex hammer, trip in with core rods.
1402 - 1428	Core run #13 from 56.38' - 59.48' (18 min.) Rec. 3.1'.
1428 - 1511	Core run #14 from 59.48' - 64.48' (23 min.) Rec. 5.0'.
1511 - 1545	Core run #15 from 64.48' - 69.48' (18 min.) Rec. 4.3'.
1545 - 1630	Shut down and secure rig.

NOTE: Average air rates
Coring - 311 SCFM Reaming - 339 SCFM

Ending Depth:	Cored 69.48'	Reamed 56.38'	Drilled 0
Daily Footage:	Cored 23.89'	Reamed 10.79'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard Wright
Personnel On Site: 1-RSN; 4-REECo; 2-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard Wright
Office Report Prepared By: Richard Wright

RAYTHEON SERVICES NEVADA

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DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 24, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Coring
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 21, 1992 (Rig Day 4)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service and start up rig.
0830 - 0855	Core run #10 from 45.59' - 49.48' (4 min.) Rec. 0.0'.
0855 - 0934	Pull out of the hole with core rods. Make up drive sampler and trip in hole with drive sampler.
0934 - 0959	Drive sample # 9 from 49.48' - 49.71' (4 min.) Rec. 0.2'.
0959 - 1016	Trip out of the hole with drive sampler, change bits, remove RSN# 30, and make up RSN#32, Drag bit, SN# 20, 8 tungsten carbide cutters, 8 open face airways. Trip in hole with core rods.
1016 - 1109	Core run #11 from 49.71' - 53.78' (20 min.) Rec. 4.1'.
1109 - 1136	Core run #12 from 53.78' - 56.38' (19 min.) Rec. 2.2'.
1136 - 1200	Pull out of hole to change bits, Remove RSN#32, make up RSN#30, trip in hole, tag 10' of fill.
1200 - 1230	Lunch
1230 - 1319	Trip out of the hole with core rods and trip in hole with Odex hammer.
1319 - 1344	Ream cycle #7 from 45.59' - 56.38'.
1344 - 1402	Pull out of the hole with Odex hammer, trip in with core rods.
1402 - 1428	Core run #13 from 56.38' - 59.48' (18 min.) Rec. 3.1'.
1428 - 1511	Core run #14 from 59.48' - 64.48' (23 min.) Rec. 5.0'.
1511 - 1545	Core run #15 from 64.48' - 69.48' (18 min.) Rec. 4.3'.
1545 - 1630	Shut down and secure rig.

NOTE: Average air rates
Coring - 311 SCFM Reaming - 339 SCFM

Ending Depth:	Cored 69.48'	Reamed 56.38'	Drilled 0
Daily Footage:	Cored 23.89'	Reamed 10.79'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard Wright
Personnel On Site: 1-RSN; 4-REECo; 2-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard Wright
Office Report Prepared By: Richard Wright

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

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Date: August 24, 1992

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Activity: Coring
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 21, 1992 (Rig Day 4)

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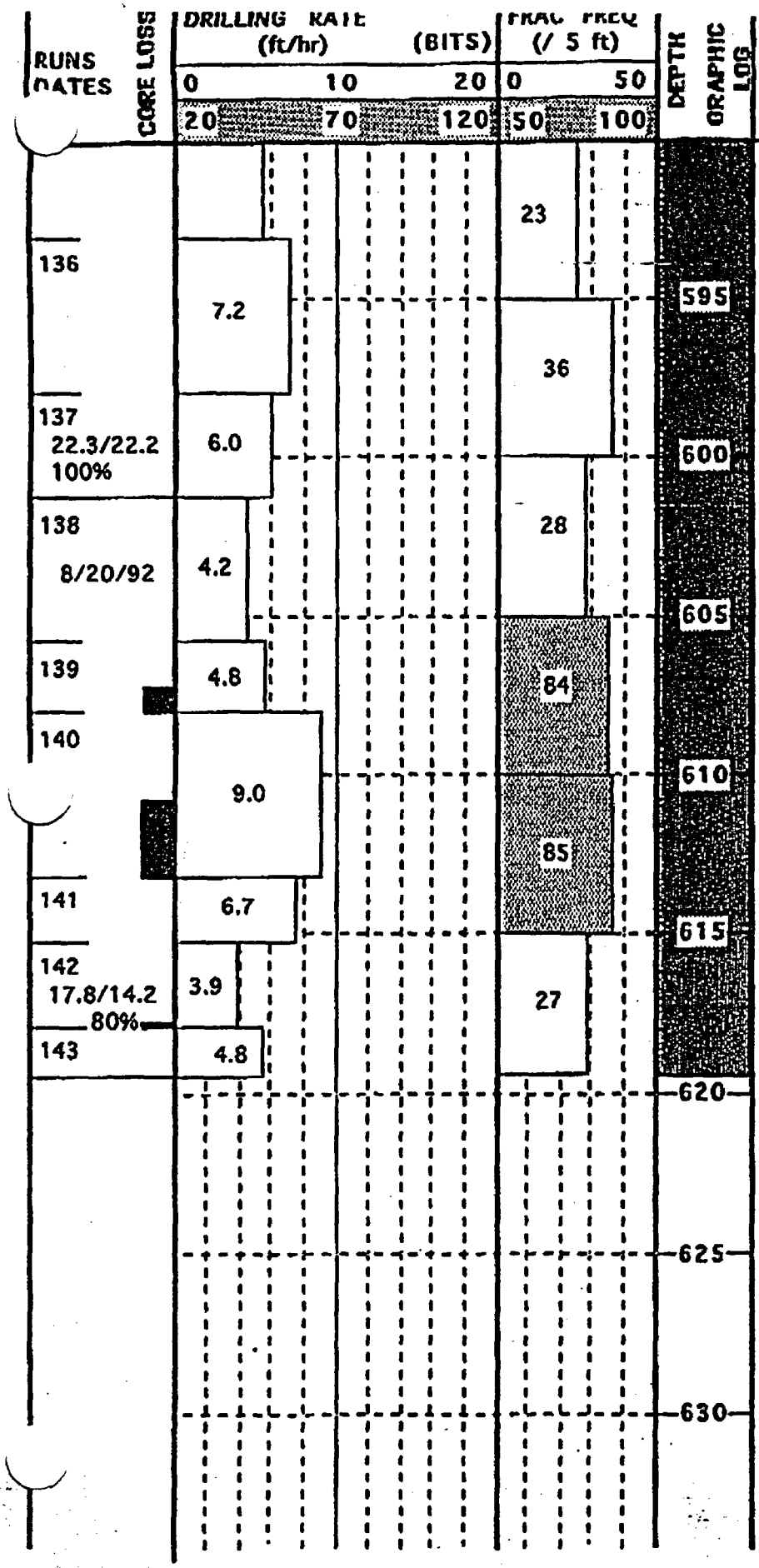
1402 - 1428	Core run #13 from 56.38' - 59.48' (18 min.) Rec. 3.1'.
1428 - 1511	Core run #14 from 59.48' - 64.48' (23 min.) Rec. 5.0'.
1511 - 1545	Core run #15 from 64.48' - 69.48' (18 min.) Rec. 4.3'.
1545 - 1630	Shut down and secure rig.

NOTE: Average air rates
Coring - 311 SCFM Reaming - 339 SCFM

Ending Depth:	Cored 69.48'	Reamed 56.38'	Drilled 0
Daily Footage:	Cored 23.89'	Reamed 10.79'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard Wright
Personnel On Site: 1-RSN; 4-REECo; 2-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard Wright
Office Report Prepared By: Richard Wright



UE25uz#16

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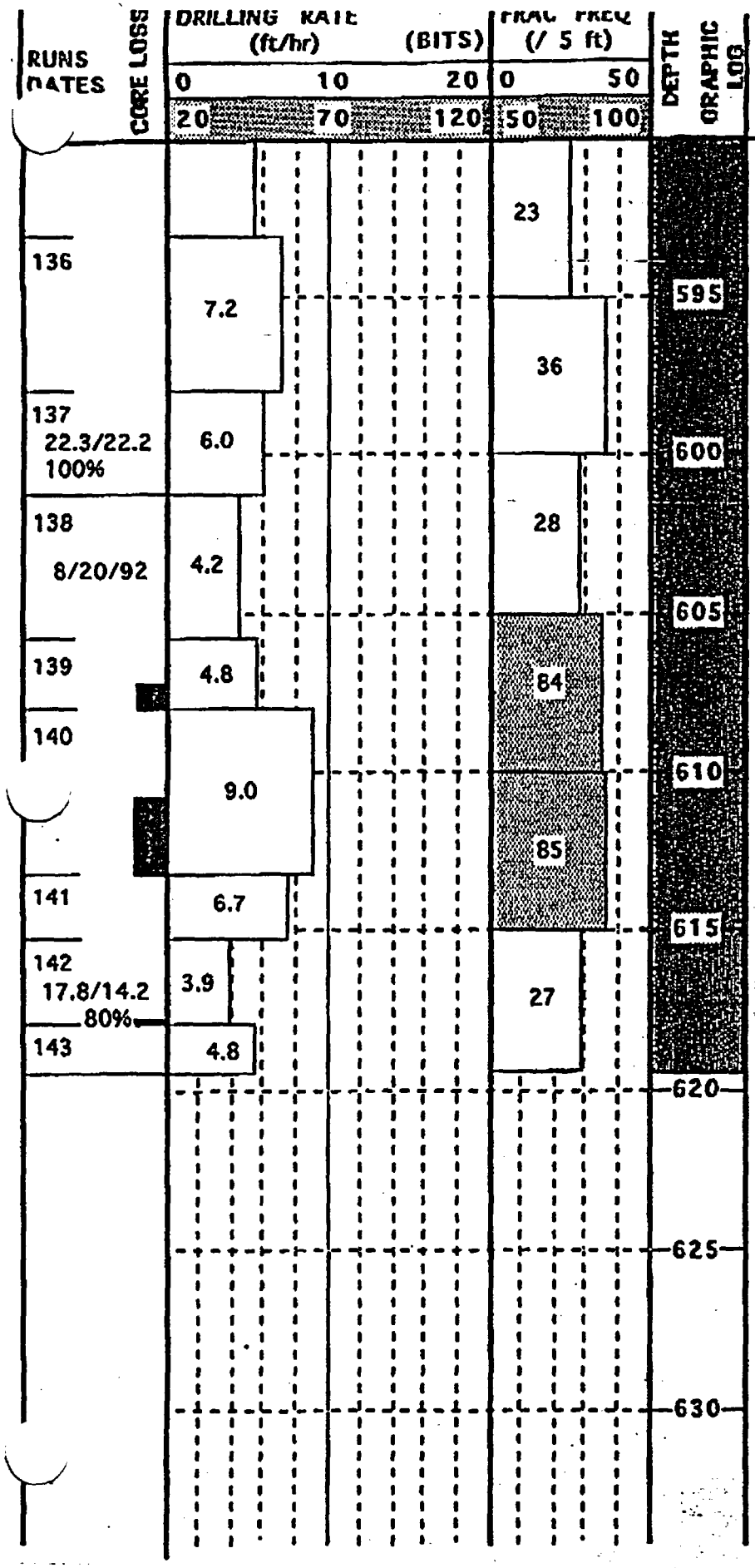
LITHOLOGY/ REMARK



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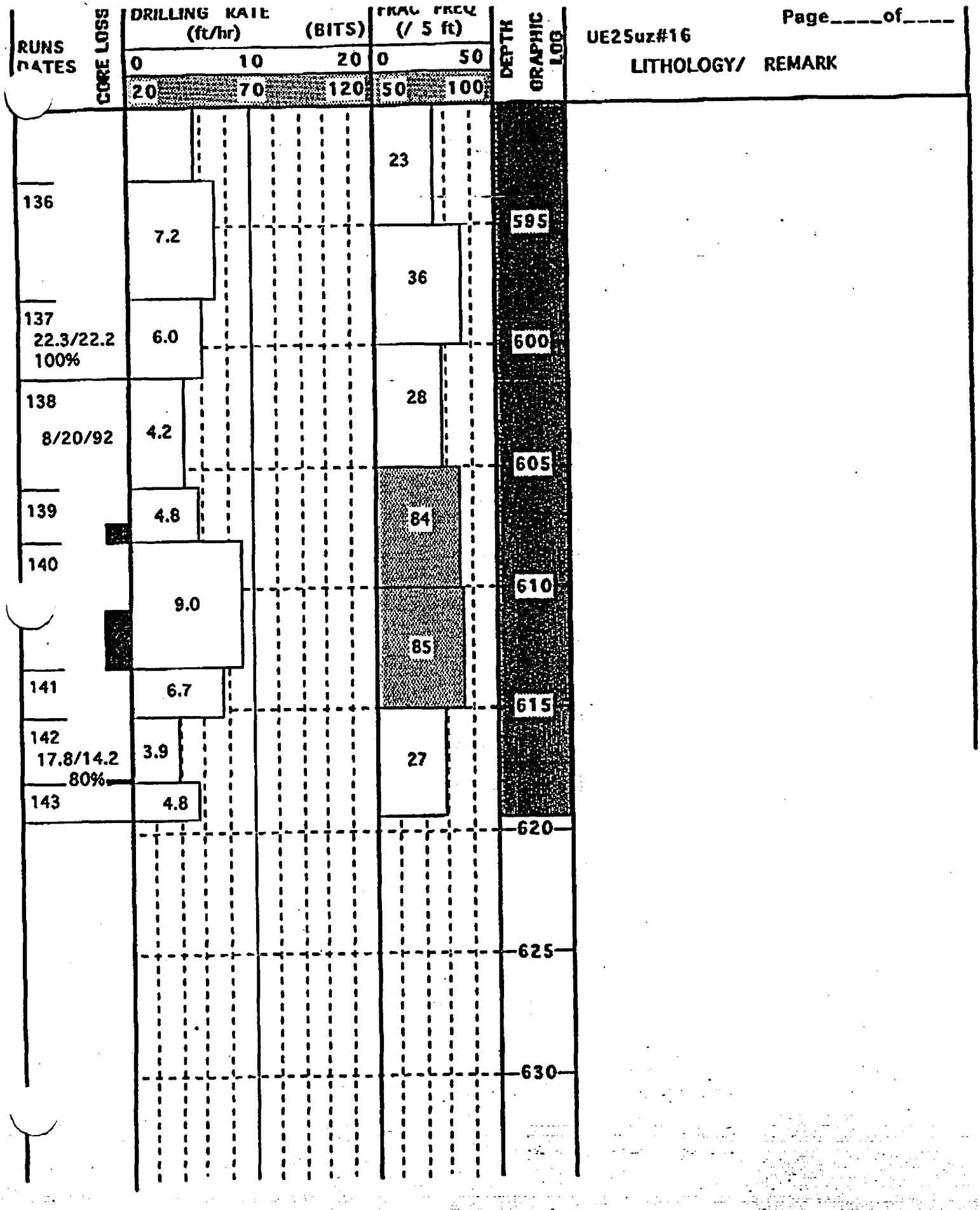
LITHOLOGY/ REMARK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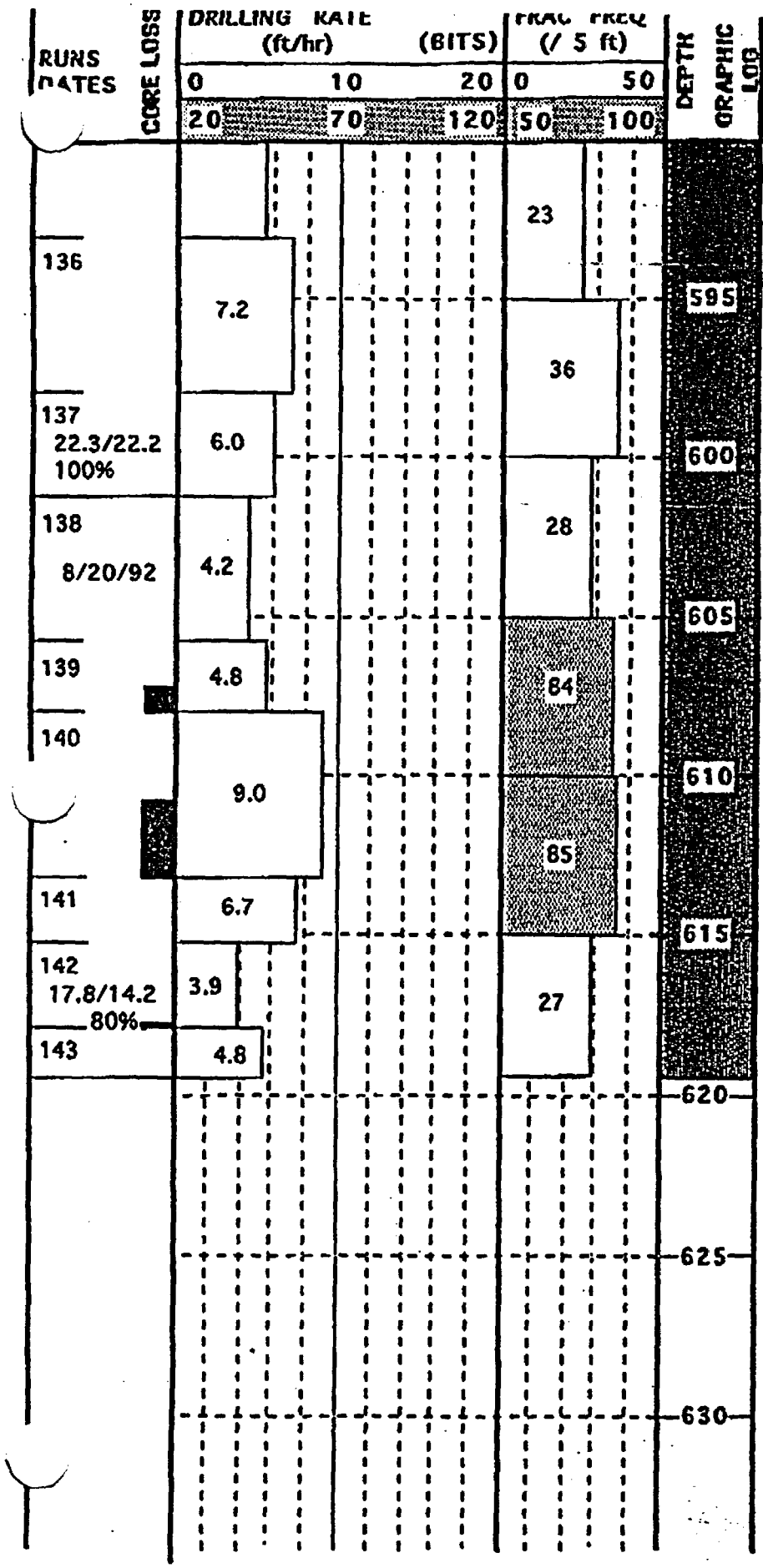
UE25uz#16
RUNS DATES
CORE LOSS
DRILLING RATE (ft/hr)
(BITS)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
50 100
DEPTH
GRAPHIC LOG
LITHOLOGY/ REMARK
136
137
22.3/22.2
100%
138
8/20/92
139
140
141
142
17.8/14.2
80%
143
7.2
6.0
4.2
4.8
9.0
6.7
3.9
4.8
23
36
28
84
85
27
595
600
605
610
615
620
625
630



UE25uz#16

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LITHOLOGY/ REMARK

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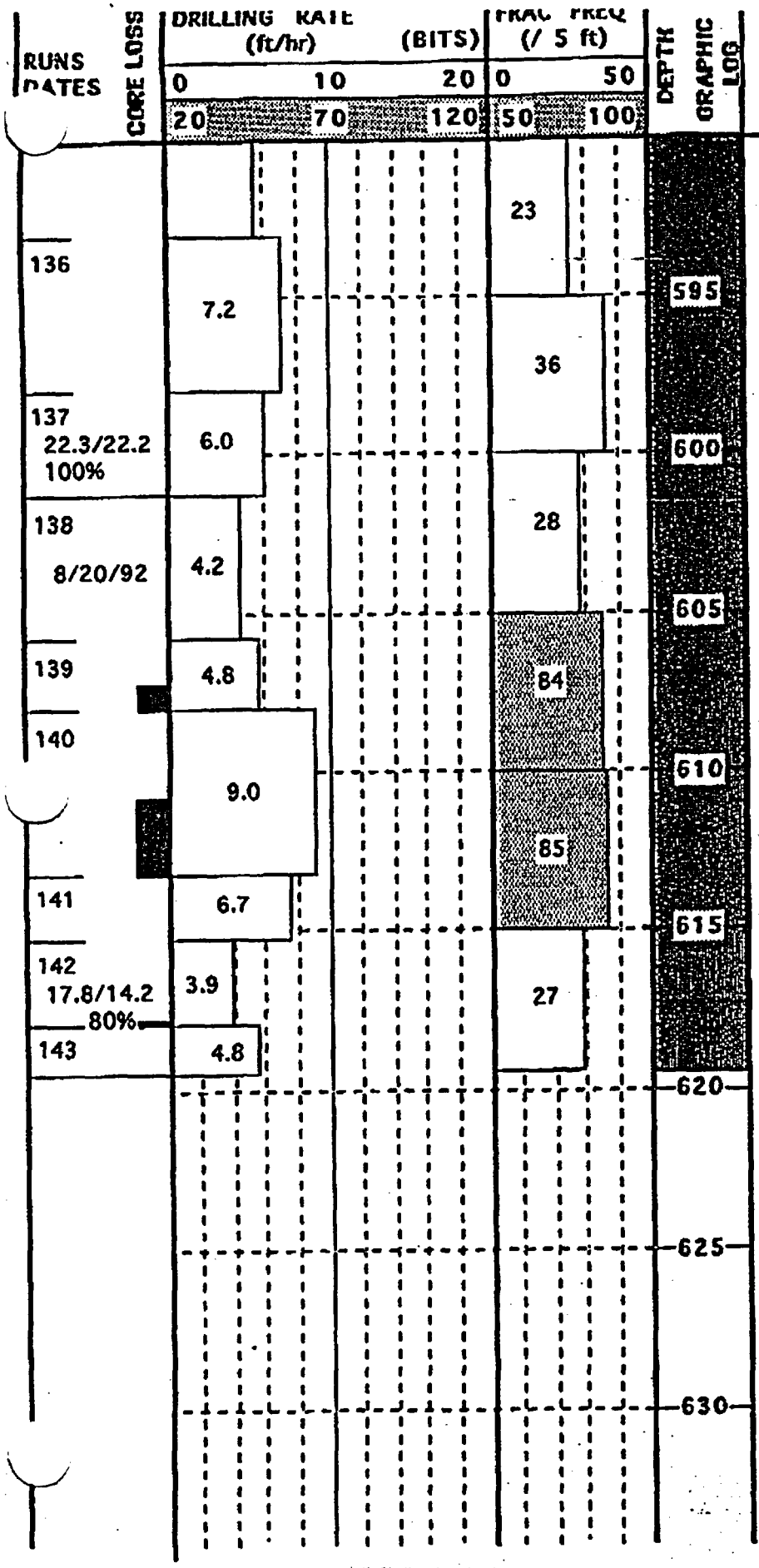
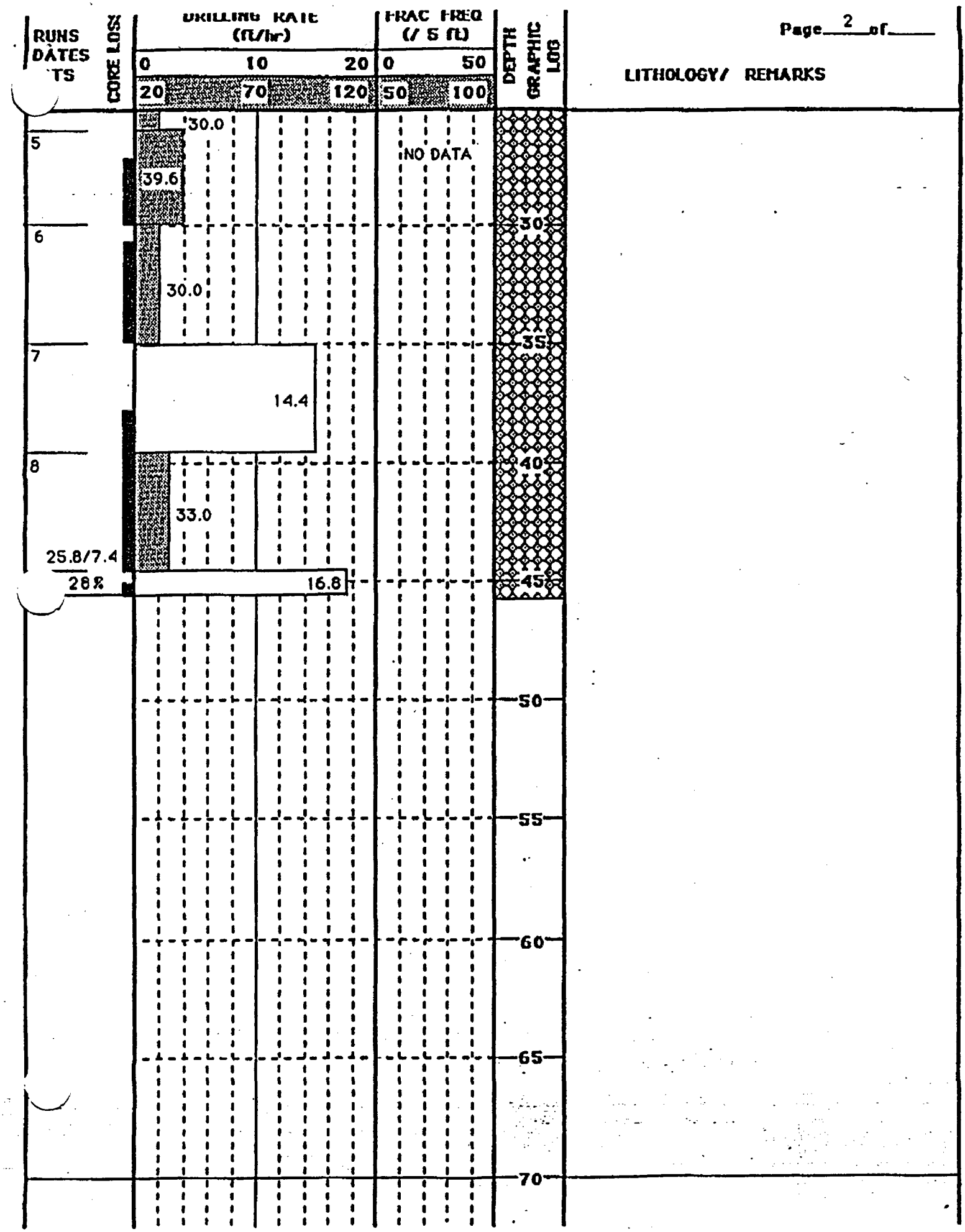
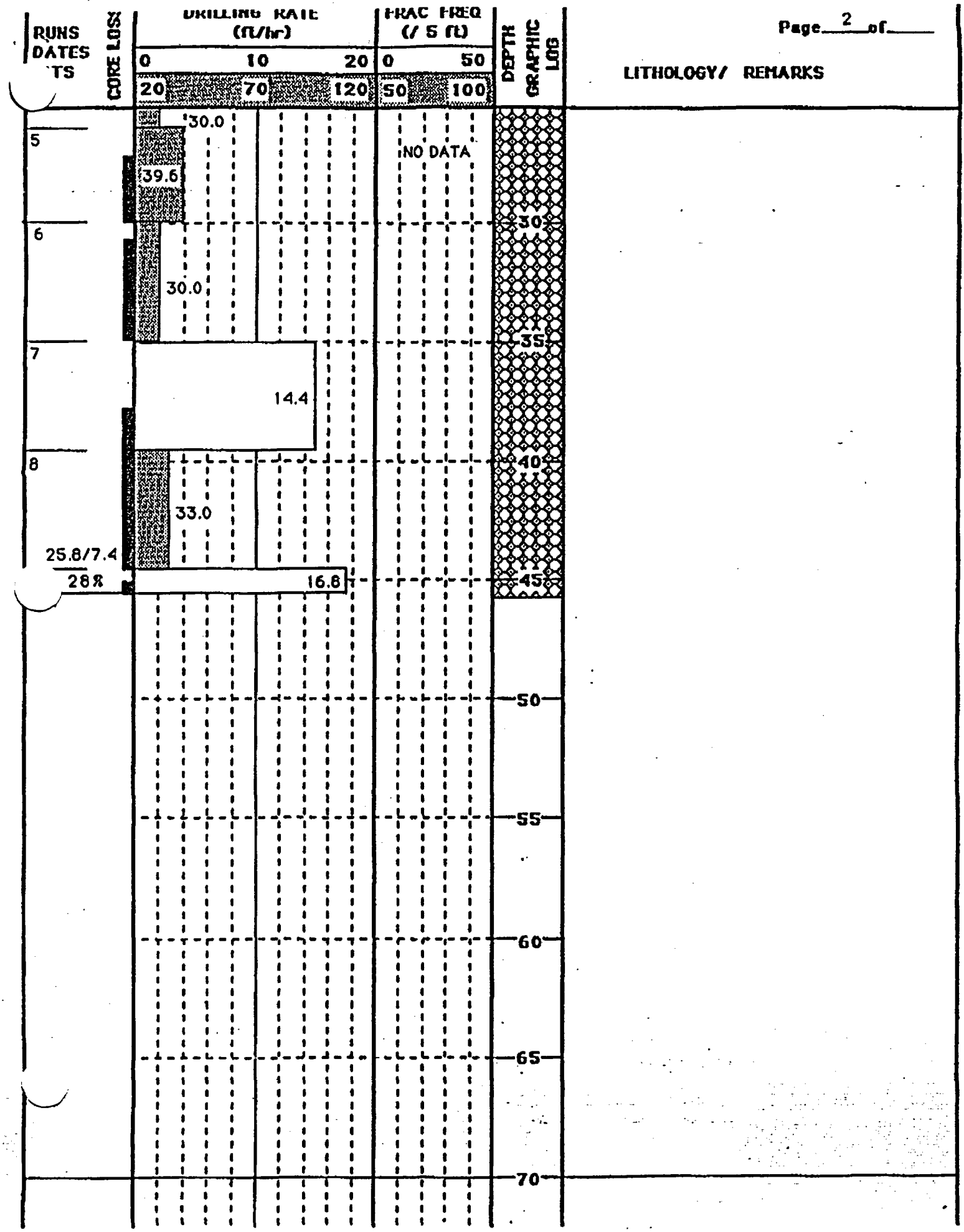
UE25uz#16




RUNS
DATES
TS
CORE LOSS
DRILLING RATE (ft/hr)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
50 100
DEPTH
GRAPHIC LOG
LITHOLOGY/ REMARKS
5
6
7
8
30.0
39.6
30.0
14.4
33.0
16.8
NO DATA
25.8/7.4
28%
30
35
40
45
50
55
60
65
70


RUNS
DATES
TS
CORE LOSS
DRILLING RATE (ft/hr)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
50 100
DEPTH
GRAPHIC LOG
LITHOLOGY/ REMARKS
5
6
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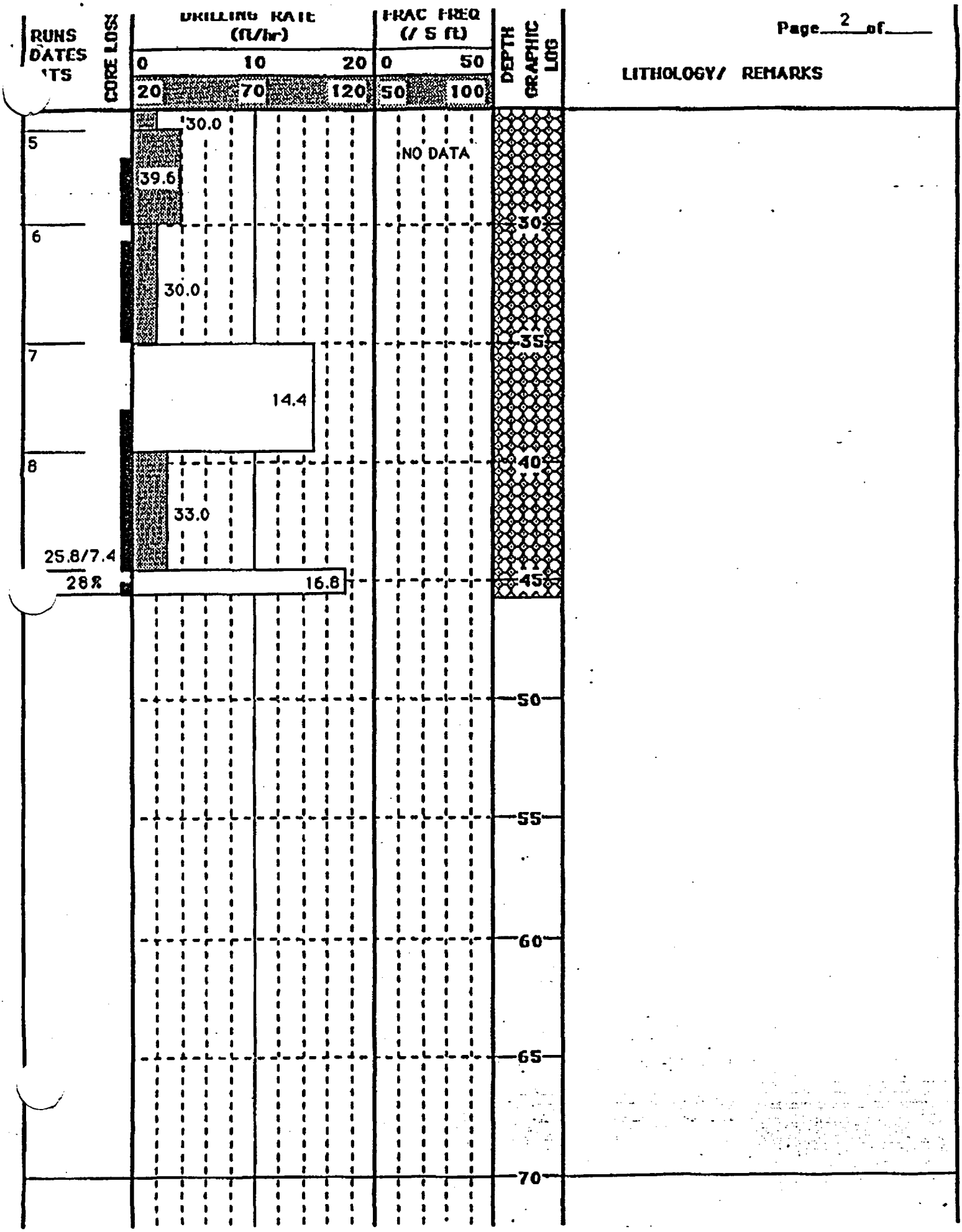
16.8
NO DATA
25.8/7.4
28%
30
35
40
45
50
55
60
65
70


RUNS
DATES
TS
CORE LOSS
DRILLING RATE (ft/hr)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
50 100
DEPTH
GRAPHIC LOG
Page 2 of
LITHOLOGY/ REMARKS
5
6
7
8
30.0
39.6
30.0
14.4
33.0
16.8
NO DATA
25.8/7.4
28%
30
35
40
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55
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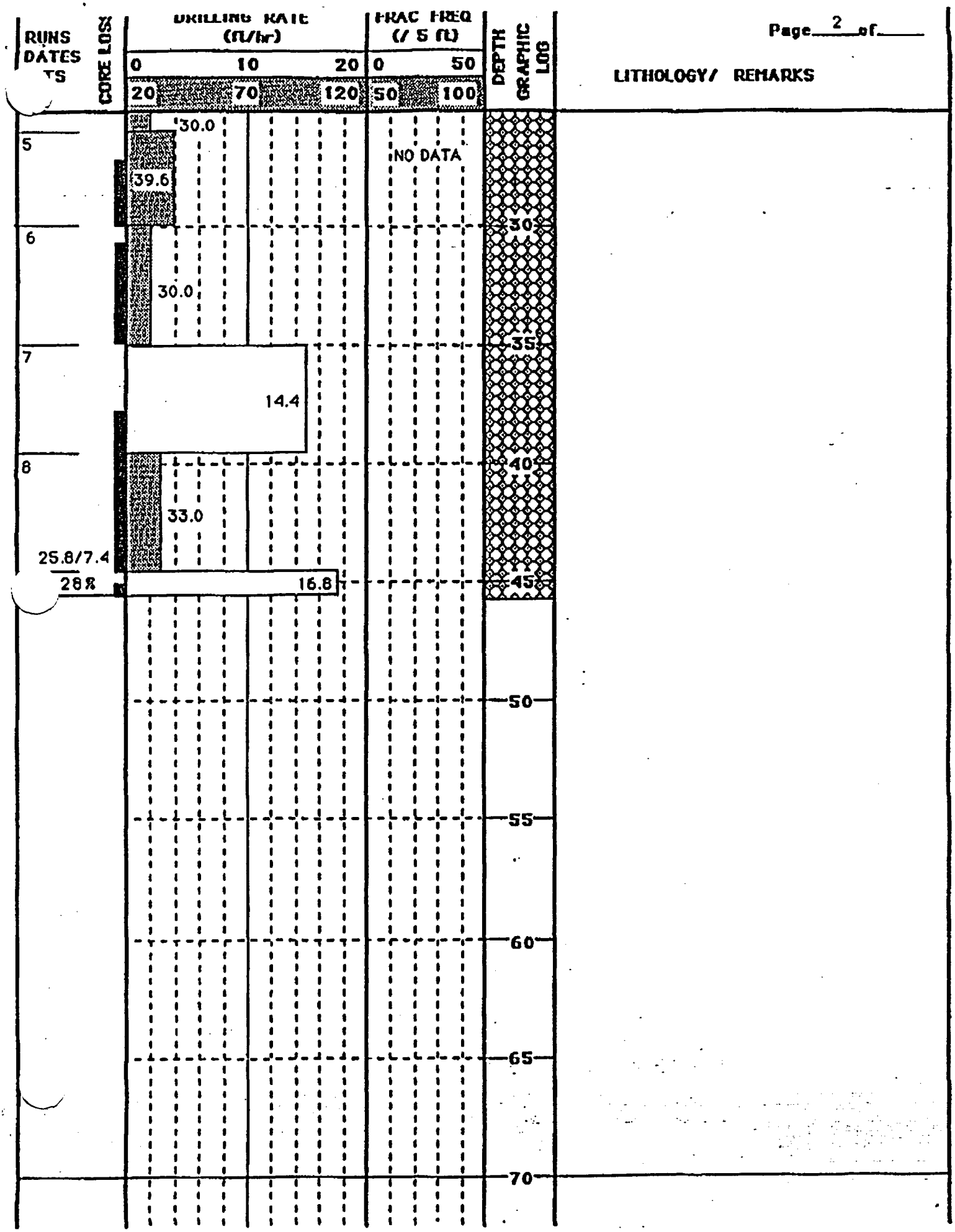
70


RUNS
DATES
TS
CORE LOSS
DRILLING RATE (ft/hr)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
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DEPTH
GRAPHIC LOG
LITHOLOGY/ REMARKS
5
6
7
8
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16.8
NO DATA
25.8/7.4
28%
30
35
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45
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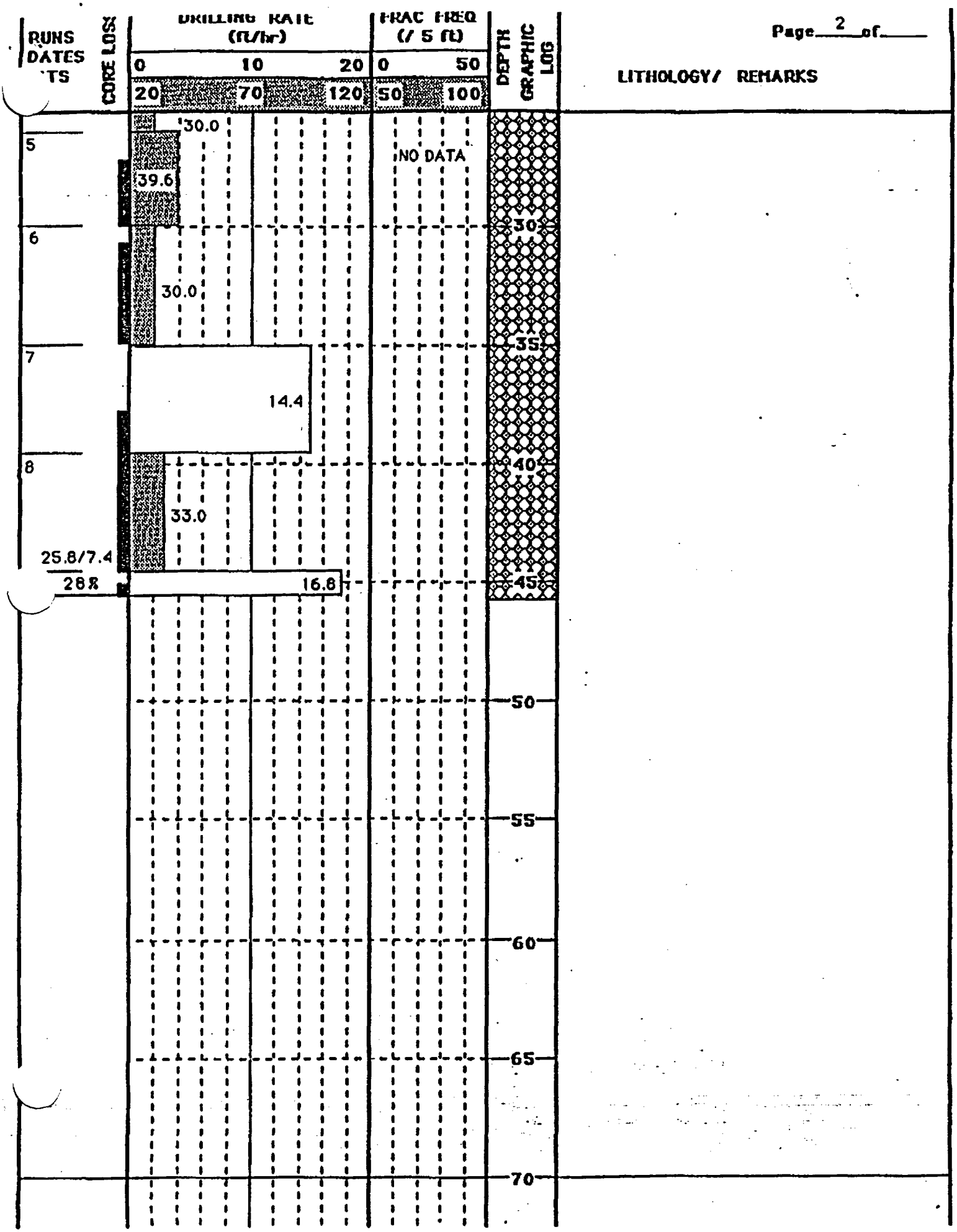
65
70

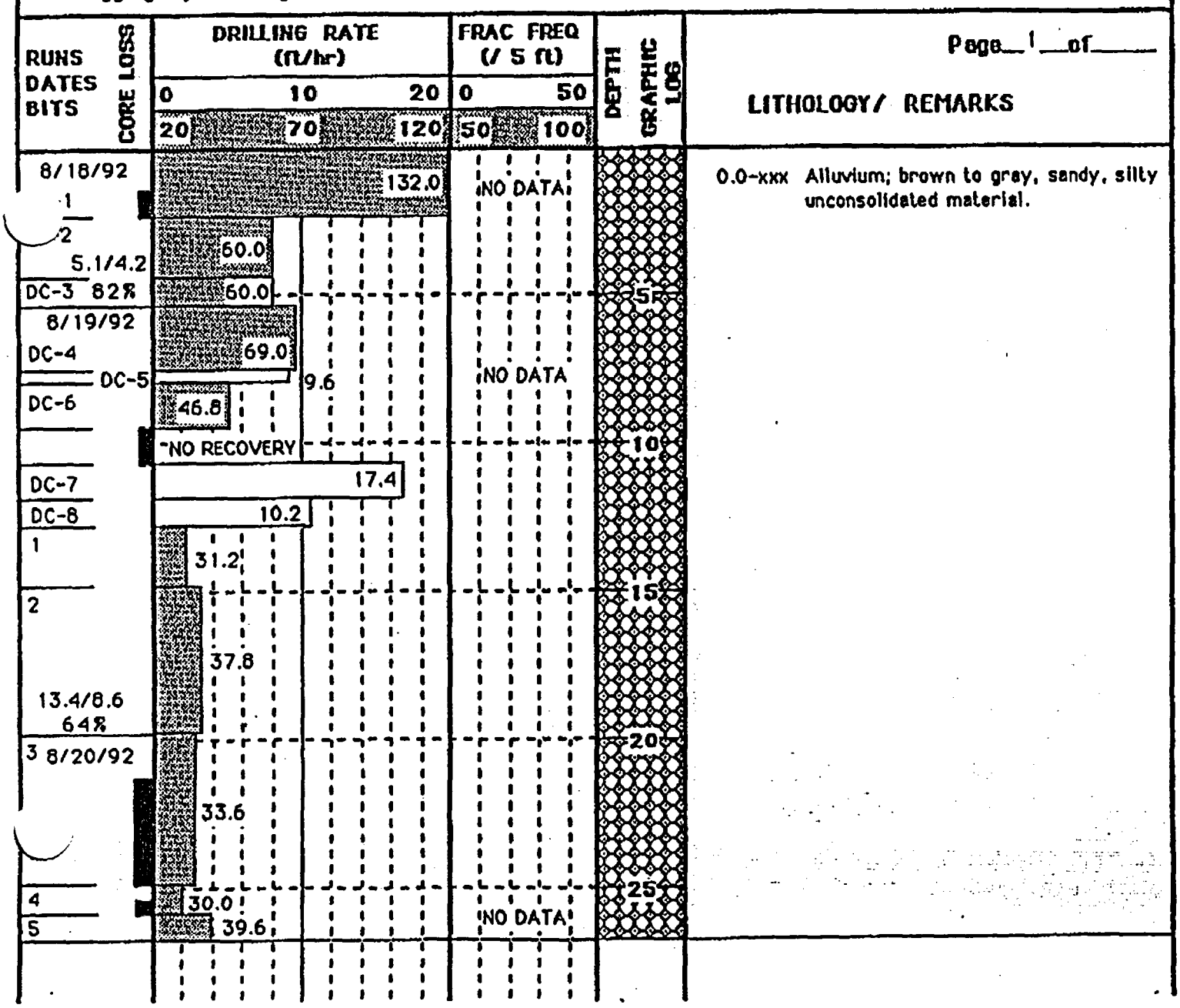

RUNS
DATES
TS
CORE LOSS
DRILLING RATE (ft/hr)
0 10 20
20 70 120
FRAC FREQ (/ 5 ft)
0 50
50 100
DEPTH
GRAPHIC LOG
LITHOLOGY/ REMARKS
Page 2 of
5
6
7
8
30.0
39.6
30.0
14.4
33.0
25.8/7.4
28%
16.8
NO DATA
30
35
40
45
50
55
60
65
70

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZH-34
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/18/92-
GROUND ELEV:
COORDINATES: N:
E:
TOTAL DEPTH:
ANGLE FROM VERT: 0 BEARING: NA

ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

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COORDINATES: N:
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TOTAL DEPTH:
ANGLE FROM VERT: 0 BEARING: NA

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NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
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Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS

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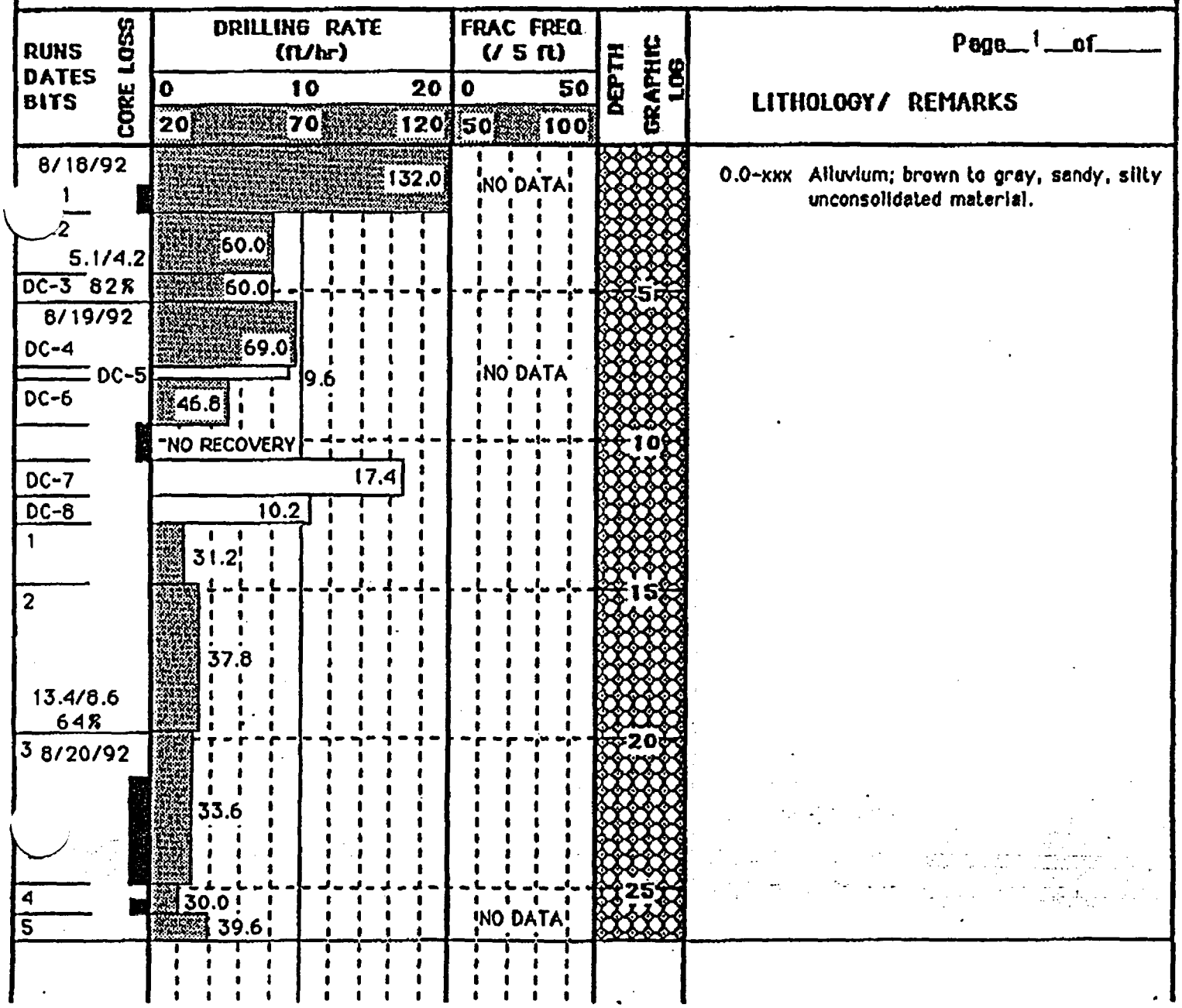


LITHOLOGY/ REMARKS

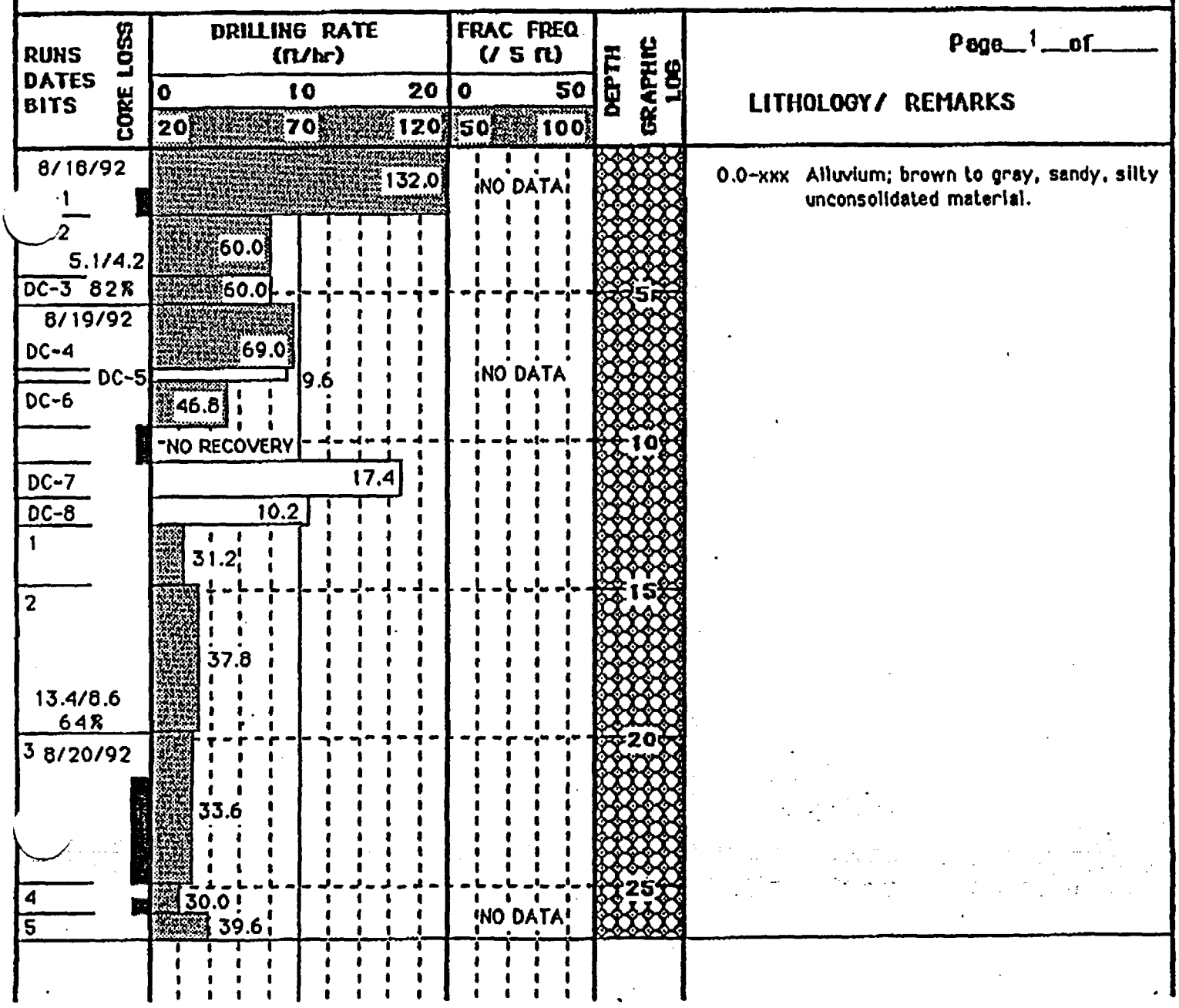
0.0-xxx Alluvium; brown to gray, sandy, silty unconsolidated material.

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZN-34
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/18/92-
GROUND ELEV:
COORDINATES: N:
E:
TOTAL DEPTH:
ANGLE FROM VERT: 0 BEARING: NA

ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



Page 1 of

LITHOLOGY/ REMARKS

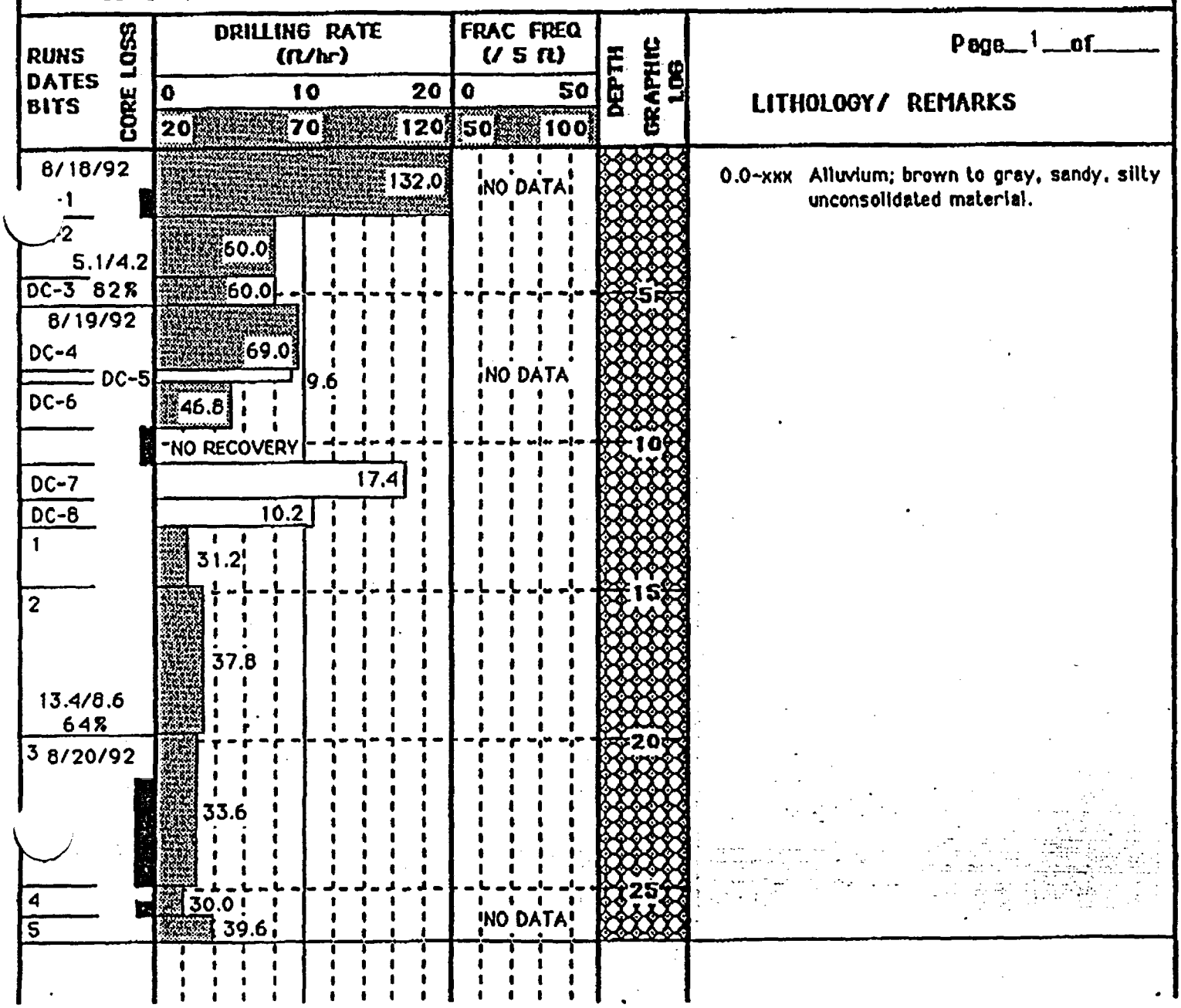
0.0-xxx Alluvium; brown to gray, sandy, silty unconsolidated material.

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZN-34
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/18/92-
GROUND ELEV:
COORDINATES: N:
E:
TOTAL DEPTH:
ANGLE FROM VERT: 0 BEARING: NA

ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



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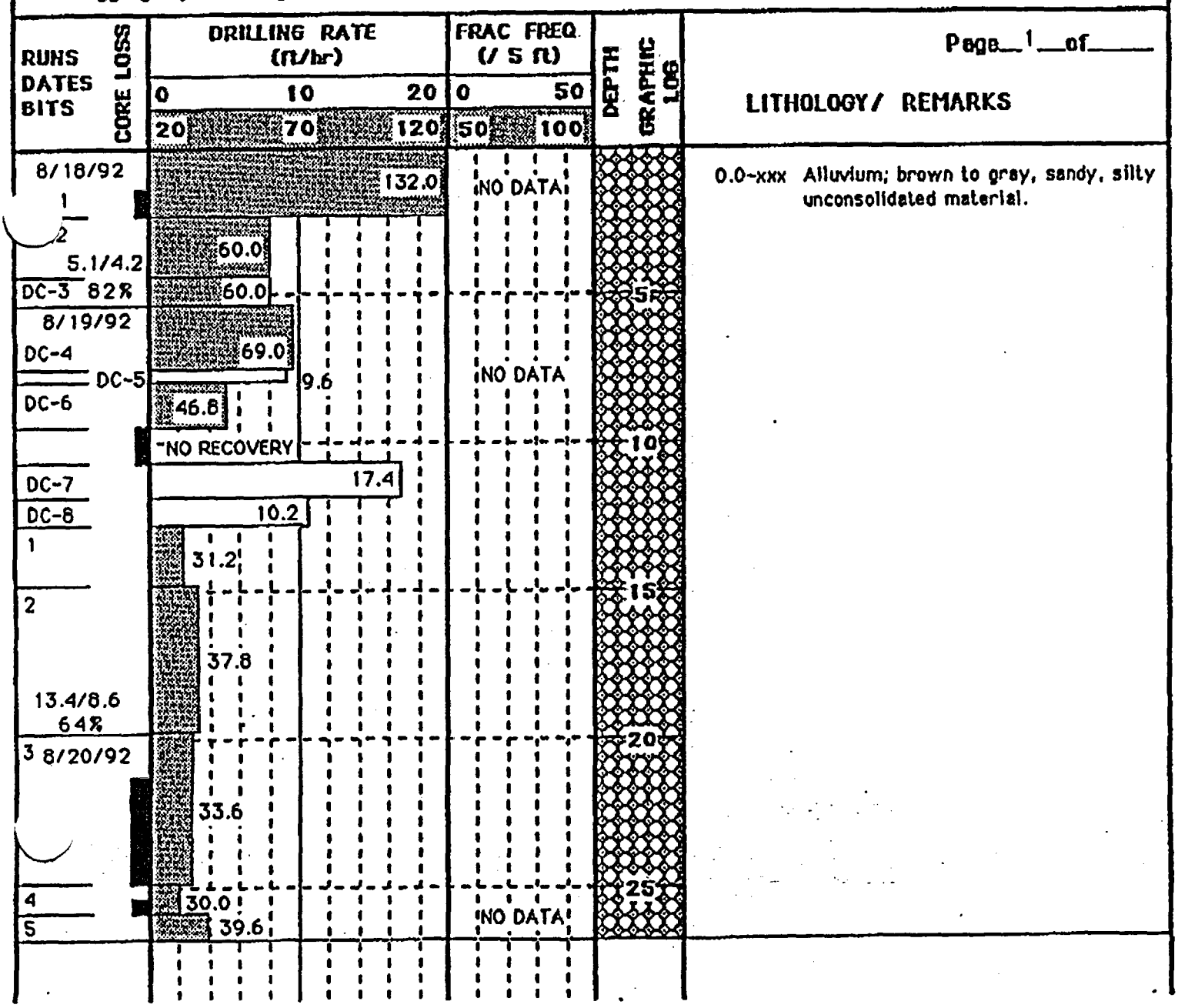
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZN-34
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/18/92-
GROUND ELEV:
COORDINATES: N:
E:
TOTAL DEPTH:
ANGLE FROM VERT: 0 BEARING: NA

ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 21, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Reaming
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 20, 1992 (Rig Day 61)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0829	Service Rig and Equipment.
0829 - 0949	Core run # 138 from 601.31'- 605.75', Rec 4.5', 60 min.
0949 - 1032	Core run # 139 from 605.75'- 607.95', Rec 1.4', 26 min.
1032 - 1122	Core run # 140 from 607.95'- 613.20', Rec 2.9', 35 min.
1122 - 1207	Core run # 141 from 613.20'- 615.89', Rec 2.3', 24 min.
1207 - 1237	Lunch.
1237 - 1335	Core run # 142 from 615.89'- 618.05', Rec 2.1', 33 min.
1335 - 1355	Core run # 143 from 618.05'- 619.06', Rec 1.0', 12 min.
1355 - 1459	Pull out of hole with coring assembly. Rig up to ream.
1459 - 1612	Begin ream cycle #53 at 578.99' and ream to 589.26'. Take sample at 583.0' to 584.0'.
1612 - 1630	Shut down and secure rig.

CORING: Average air rate: 477 SCFM
Average vacuum rate: 1116 SCFM

REAMING: Average air rate: 1133 SCFM
Average vacuum rate: 1219 SCFM

Ending Depth:	Cored 619.06'	Reamed 589.26'	Drilled 0
Daily Footage:	Cored 17.75'	Reamed 10.27'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 9-REECO; 3-USGS; 4-SMF; 9-Visitors.

Field Report Prepared By: David Putnam
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 21, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Reaming
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 20, 1992 (Rig Day 61)

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1335 - 1355	Core run # 143 from 618.05'- 619.06', Rec 1.0', 12 min.
1355 - 1459	Pull out of hole with coring assembly. Rig up to ream.
1459 - 1612	Begin ream cycle #53 at 578.99' and ream to 589.26'. Take sample at 583.0' to 584.0'.
1612 - 1630	Shut down and secure rig.

CORING: Average air rate: 477 SCFM.
Average vacuum rate: 1116 SCFM

REAMING: Average air rate: 1133 SCFM
Average vacuum rate: 1219 SCFM

Ending Depth:	Cored 619.06'	Reamed 589.26'	Drilled 0
Daily Footage:	Cored 17.75'	Reamed 10.27'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 9-REECO; 3-USGS; 4-SMF; 9-Visitors.

Field Report Prepared By: David Putnam
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 21, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Reaming
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 20, 1992 (Rig Day 61)

HOURS FROM - TO	OPERATIONS DESCRIPTION
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1459 - 1612	Begin ream cycle #53 at 578.99' and ream to 589.26'. Take sample at 583.0' to 584.0'.
1612 - 1630	Shut down and secure rig.

CORING: Average air rate: 477 SCFM
Average vacuum rate: 1116 SCFM

REAMING: Average air rate: 1133 SCFM
Average vacuum rate: 1219 SCFM

Ending Depth:	Cored 619.06'	Reamed 589.26'	Drilled 0
Daily Footage:	Cored 17.75'	Reamed 10.27'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 9-REECO; 3-USGS; 4-SMF; 9-Visitors.

Field Report Prepared By: David Putnam
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 21, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Reaming
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 20, 1992 (Rig Day 61)

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1335 - 1355	Core run # 143 from 618.05'- 619.06', Rec 1.0', 12 min.
1355 - 1459	Pull out of hole with coring assembly. Rig up to ream.
1459 - 1612	Begin ream cycle #53 at 578.99' and ream to 589.26'. Take sample at 583.0' to 584.0'.
1612 - 1630	Shut down and secure rig.

CORING: Average air rate: 477 SCFM.
Average vacuum rate: 1116 SCFM

REAMING: Average air rate: 1133 SCFM
Average vacuum rate: 1219 SCFM

Ending Depth:	Cored 619.06'	Reamed 589.26'	Drilled 0
Daily Footage:	Cored 17.75'	Reamed 10.27'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 9-REECO; 3-USGS; 4-SMF; 9-Visitors.

Field Report Prepared By: David Putnam
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 21, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Reaming
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 20, 1992 (Rig Day 61)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0829	Service Rig and Equipment.
0829 - 0949	Core run # 138 from 601.31'- 605.75', Rec 4.5', 60 min.
0949 - 1032	Core run # 139 from 605.75'- 607.95', Rec 1.4', 26 min.
1032 - 1122	Core run # 140 from 607.95'- 613.20', Rec 2.9', 35 min.
1122 - 1207	Core run # 141 from 613.20'- 615.89', Rec 2.3', 24 min.
1207 - 1237	Lunch.
1237 - 1335	Core run # 142 from 615.89'- 618.05', Rec 2.1', 33 min.
1335 - 1355	Core run # 143 from 618.05'- 619.06', Rec 1.0', 12 min.
1355 - 1459	Pull out of hole with coring assembly. Rig up to ream.
1459 - 1612	Begin ream cycle #53 at 578.99' and ream to 589.26'. Take sample at 583.0' to 584.0'.
1612 - 1630	Shut down and secure rig.

CORING: Average air rate: 477 SCFM
Average vacuum rate: 1116 SCFM

REAMING: Average air rate: 1133 SCFM
Average vacuum rate: 1219 SCFM

Ending Depth:	Cored 619.06'	Reamed 589.26'	Drilled 0
Daily Footage:	Cored 17.75'	Reamed 10.27'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam and James E. Anthony, RSN
Personnel On Site: 2-RSN; 9-REECO; 3-USGS; 4-SMF; 9-Visitors.

Field Report Prepared By: David Putnam
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 21, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Coring
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 20, 1992 (Rig Day 3)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service and start up rig.
0830 - 0903	Trip out of hole with Odex hammer and trip in hole with core rods.
0903 - 0933	Core run #3 from 19.84' - 24.88' (9 min.) Rec. 1.4'.
0933 - 1001	Core run #4 from 24.88' - 25.91' (2 min.) Rec. 0.5'.
1001 - 1024	Ream cycle #4 from 10.74' - 25.91'.
1024 - 1040	Pull out of the hole with Odex hammer, trip in with core rods.
1040 - 1057	Core run #5 from 25.91' - 29.88' (6 min.) Rec. 1.2'.
1057 - 1120	Core run #6 from 29.88' - 34.88' (10 min.) Rec. 0.8'.
1120 - 1200	Trip out of the hole with core rods.
1200 - 1230	Lunch
1230 - 1251	Trip in hole with Odex hammer.
1251 - 1312	Ream cycle #5 from 25.91' - 34.88'.
1312 - 1330	Trip out of hole with Odex hammer and trip in hole with core rods.
1330 - 1400	Core run #7 from 34.88' - 39.48' (19 min.) Rec. 2.9'.
1400 - 1432	Core run #8 from 39.48' - 44.48' (9 min.) Rec. 0.0'.
1432 - 1446	Core run #9 from 44.48' - 45.59' (4 min.) Rec. 0.6'.
1446 - 1507	Trip out of the hole with core rods. Trip in the hole with Odex hammer.
1507 - 1531	Ream cycle #6 from 34.88' - 45.59'.
1531 - 1600	Pull out of the hole with Odex hammer, trip in with core rods.
1600 - 1630	Shut down and secure rig.
	NOTE: Average air rates
	Coring - 284 SCFM Reaming - 383 SCFM

Ending Depth:	Cored 45.59'	Reamed 45.59'	Drilled 0
Daily Footage:	Cored 25.75'	Reamed 34.85'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard Wright
Personnel On Site: 1-RSN; 4-REECo; 3-SMF; 2-USGS; 5-Visitors

Field Report Prepared By: Richard Wright
Office Report Prepared By: Richard Wright

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZN-34

STUDY PLAN NO:

CORE SIZE:

DRILL DATES:

GROUND ELEV:

COORDINATES: N:

E:

TOTAL DEPTH:

ANGLE FROM VERT: BEARING:

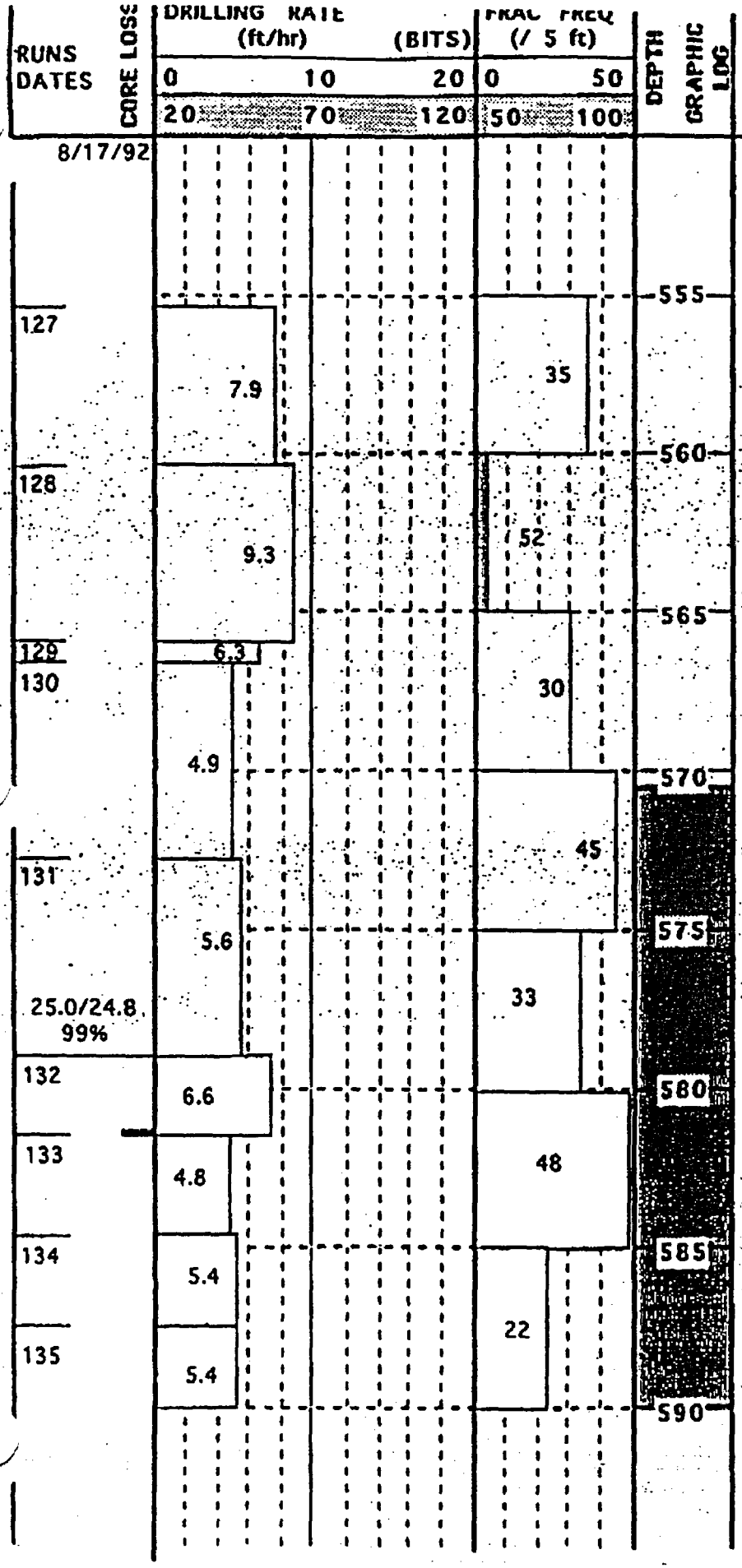
ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS

Page 1 of

RUNS DATES BITS	CORE LOSS	DRILLING RATE (ft/hr) 0 10 20 / 20 70 120	FRAC FREQ (/5 ft) 0 50 / 50 100	DEPTH	GRAPHIC LOG	LITHOLOGY/ REMARKS
8/18/92		132.0	NO DATA			0.0-xxx Alluvium; brown to gray sandy, silty unconsolidated material.
DC-1						
DC-2		60.0				
5.1/4.2						
DC-3 82%		60.0		5		
8/19/92						
DC-4		69.0				
DC-5		9.6	NO DATA			
DC-6		46.8				
		NO RECOVERY		10		
DC-7		17.4				
DC-8		10.2				
1		31.2				
2				15		
		37.8				
13.4-8.6 6-8						
3				20		
				25		

UE25uz#16



ELEV. 4042'
N: 760,535.32
E: 564,856.90

LITHOLOGY/ REMARK

UE25uz#16

RUNS DATES	CORE LDS	(ft/hr) 0–10–20 / 20–70–120	(BITS)	(/ 5 ft) 0–50 / 50–100	DEPTH	GRAPHIC LOG	LITHOLOGY/ REMARK
136		7.2		23	595		
137 22.3/22.2 100%		6.0		36	600		
					605		
					610		
					615		
					620		
					625		
					630		

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 20, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Reaming
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 19, 1992 (Rig Day 2)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service and start up rig.
0830 - 0910	Rig up Odex Hammer
0910 - 0915	Ream cycle #1 from 0.00' - 5.09'.
0915 - 0926	Lay down hammer and trip in the hole with the drive sampler.
0926 - 0945	Drive sample #4 from 5.09' - 7.38' Rec. 2.3'.
0945 - 1020	Drive sample #5 from 7.38' - 7.85' Rec. .5'.
1020 - 1033	Ream cycle #2 from 5.09' - 7.00'.
1033 - 1040	Drive sample #6 from 7.85' - 9.40' Rec. 1.5'.
1040 - 1200	Attempt drive sample #7. Could not get back to bottom. Pull out of hole with drive sampler and trip in hole with a slick hammer to clean out hole.
1200 - 1230	Lunch
1230 - 1326	Work hammer up and down, could not clean up the hole. Pull out of the hole with the slick hammer and trip in the hole with the odex hammer.
1326 - 1333	Ream cycle #3 from 7.00' - 10.74'.
1333 - 1338	Drive sample #7 from 10.74' - 11.90' Rec. 1.2'.
1338 - 1425	Drive sampler broke. Repair sampler.
1425 - 1430	Drive sample #8 from 11.90' - 12.75' Rec. .9'.
1430 - 1458	Pull out of the hole with the drive sampler. Pick up RSN bit #30 (carbonado) and trip in the hole with the core rod.
1458 - 1513	Core run #1 from 12.75' - 14.84' (4 min.) Rec. 0.8'.
1513 - 1530	Core run #2 from 14.84' - 19.84' (8 min.) Rec. 1.0'.
1530 - 1600	Trip out of hole with core rods and trip in hole with Odex hammer. Start ream cycle #4.
1600 - 1630	Shut down and secure rig.
	NOTE: Average air rates
	Coring - 130 SCFM Reaming - 320 SCFM

Ending Depth:	Cored 19.84'	Reamed 10.74'	Drilled 0
Daily Footage:	Cored 14.75'	Reamed 10.74'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Don Cunningham
Personnel On Site: 1-RSN; 5-REECo; 4-SMF; 1-USGS; 2-Visitors

Field Report Prepared By: Don Cunningham
Office Report Prepared By: Don Cunningham

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 20, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Coring
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 19, 1992 (Rig Day 60)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0820	Service Rig and Equipment.
0820 - 0858	Run core rods in hole.
0858- 0942	Core run # 132 from 579.01'- 581.48', Rec 2.40', 22 min.
0942 - 1041	Core run # 133 from 581.48'- 584.61', Rec 3.10', 38 min.
1041 - 1130	Core run # 134 from 584.61'- 587.52', Rec 2.90', 32 min.
1130 - 1200	Core run # 135.
1200 - 1230	Lunch.
1230 - 1336	Finish core run # 135 from 587.52'- 593.11', Rec 5.60', 64 min.
1336 - 1457	Core run # 136 from 593.11'- 597.99', Rec 4.90',40 min.
1457 - 1600	Core run # 137 from 597.99'- 601.31', Rec 3.30', 34 min.
1600 - 1630	Clean up and secure rig.

CORING: Average air rate: 470 SCFM
Average vacuum rate: 1120 SCFM

REAMING: Average air rate: NA
Average vacuum rate: NA

Ending Depth:	Cored 601.31'	Reamed 578.99'	Drilled 0
Daily Footage:	Cored 22.30'	Reamed 0	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: David Putnam,RSN
Personnel On Site: 1-RSN; 9-REECO; 3-USGS; 5-SMF; 0-Visitors; DOE-2.

Field Report Prepared By: David Putnam
Office Report Prepared By: David Putnam

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE COREHOLE LOG

COREHOLE ID: USW UZN-34

STUDY PLAN NO:

CORE SIZE:

DRILL DATES:

GROUND ELEV:

COORDINATES: N:

E:

TOTAL DEPTH:

ANGLE FROM VERT: BEARING:

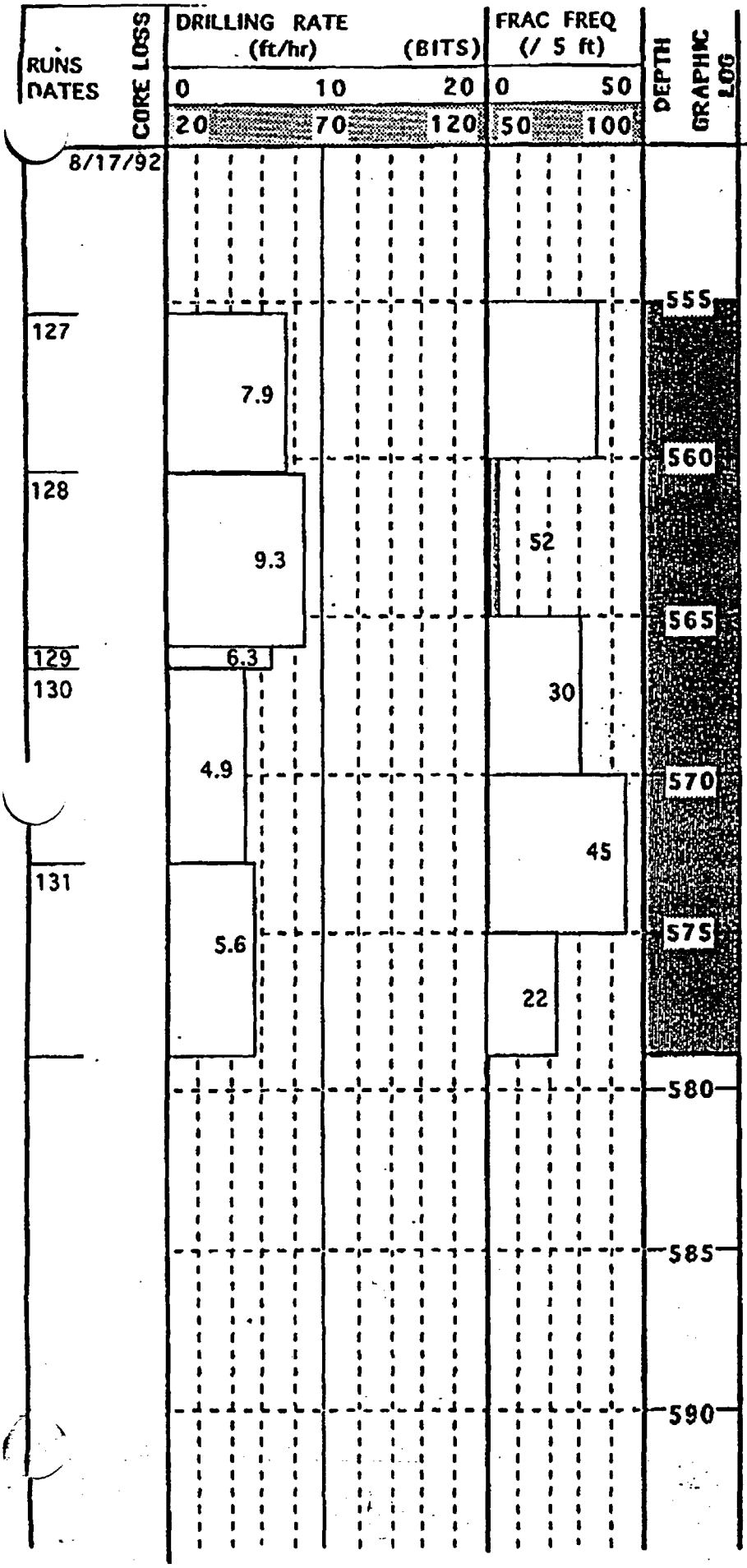
ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS

Page 1 of

RUNS DATES BITS	CORE LOSS	DRILLING RATE (ft/hr) 0 10 20 / 20 70 120	FRAC FREQ (/ 5 ft) 0 50 / 50 100	DEPTH	GRAPHIC LOG	LITHOLOGY/ REMARKS
8/18/92 DC-1		132.0	NO DATA			0.0-xxx Alluvium; brown to grey sandy, silty unconsolidated material.
	5.1/4.2	60.0				
DC-3 82%		60.0		5		
				10		
				15		
				20		
				25		

UE25uz#16



LITHOLOGY/ REMARK

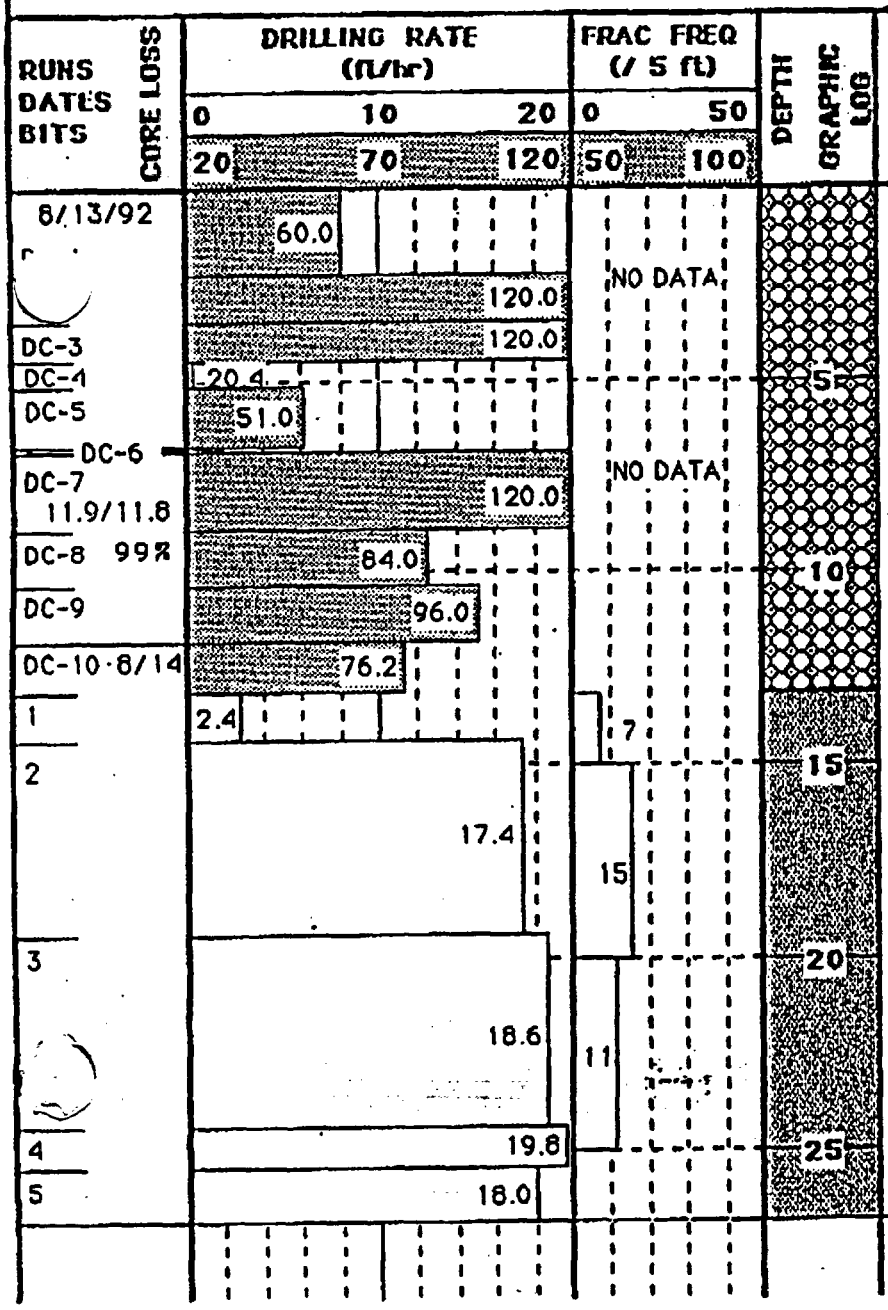
ATTACHED IS PRELIMINARY FIELD COMPOSITE LOG OF THE USW UZ N33

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE CORE LITHOLOGY/ REMARKS

COREHOLE ID: USW UZH-33
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/13/92-
GROUND ELEV: 4340
COORDINATES: N: ___
E: ___
TOTAL DEPTH: ___
ANGLE FROM VERT: ___ BEARING: ___

- ALLUVIUM
- NON-WELDED
- PARTIALLY WELDED
- DENSELY WELDED
- VITROPHYRE
- BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



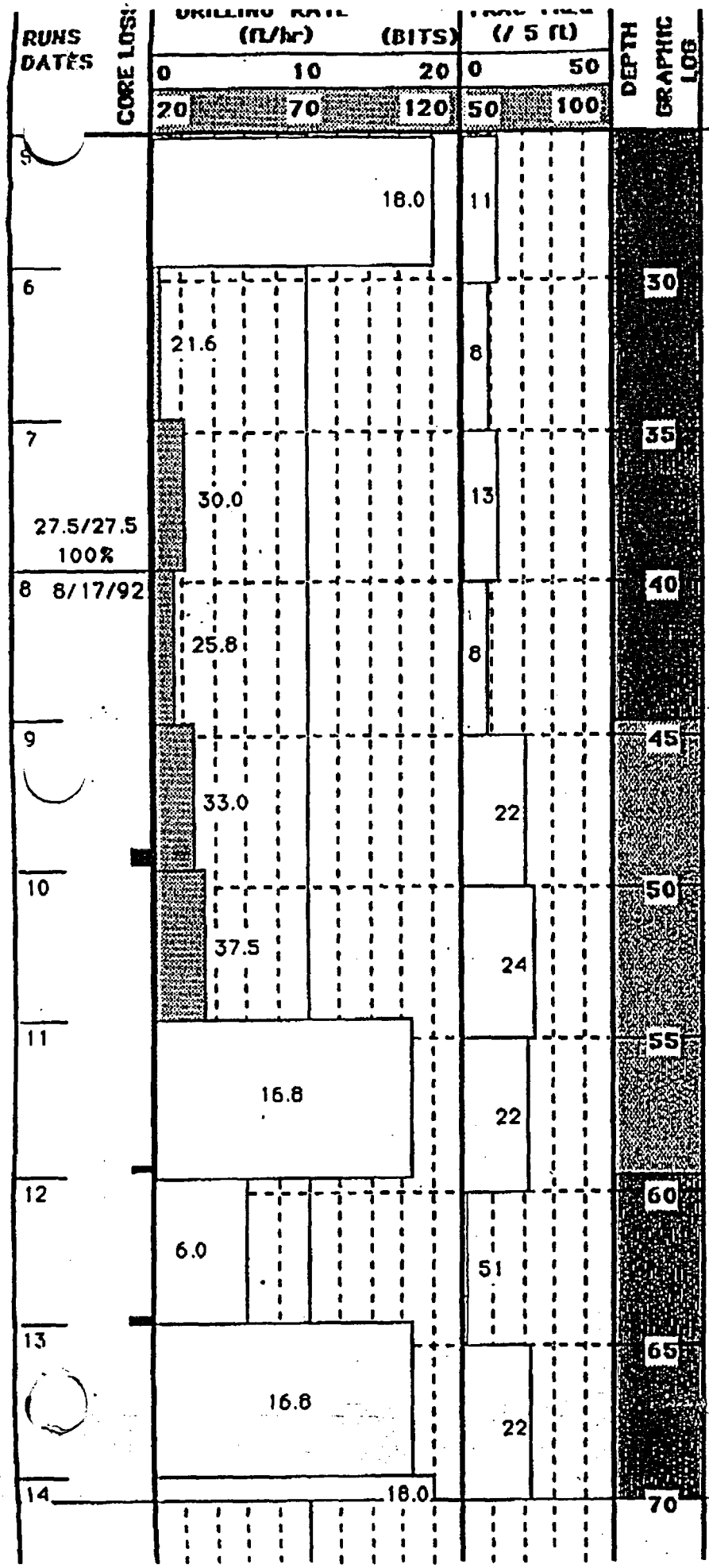
LITHOLOGY/REMARKS

0.0-13.1 Alluvium; brown to gray brown, silty, unconsolidated.

13.1 Alluvium/Tiva - Shardy Base Contact

13.1-44.2 Tuff, ashflow: pale reddish brown to pale red nonwelded, vitric; 10-30% pumice fragments;<5% phenocrysts, black glass shards, 1-5% quartz; manganese oxide on fractures.

USW UZN-33 Page 2 of 3



LITHOLOGY/ REMARKS

44.2 Shardy Base/ Bedded Tuff Contact

44.2- 59.2 Bedded tuff, ashfall; grayish orange pink to light gray; nonwelded; vitric; < 5% pumice fragments; < 5% glass shards; 1-2% phenocryst.

59.2 Bedded Tuff/ Yucca Mountain Member Contact

59.2-75.0 Yucca Mountain Member - Tuff ashflow; medium light gray to light brownish gray, nonwelded to partially welded; devitrified; 1% pumice, bluish white, vitric.

RUNS DATES BITS	CORE LOSS	DRILLING RATE (ft/hr) 0 10 20 / 20 70 120	FRAC FREQ (/ 5 ft) 0 50 / 50 100	DEPTH	GRAPHIC LOG	LITHOLOGY/ REMARKS
14 33.7/33.2 98%		18.0	18			
15 8/18 1.9 100%		11.4				
				75		TOTAL CORE DEPTH = 75.0 CASING DEPTH = 74.0 CUMMULATIVE TOTAL: 75.0/74.4 99%
				80		
				85		

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 19, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N34
Drill Rig: CME-850
Activity: Drive Sampling
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 18, 1992 (Rig Day 1)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 1300	No activity
1300 - 1456	Move in equipment from USW UZ N33 and rig up same.
1456 - 1507	Drive sample #1 from 0 - 2.20' Rec. 1.3'.
1507 - 1529	Drive sample #2 from 2.20' - 4.19' Rec. 2.0'.
1529 - 1600	Drive sample #3 from 4.19' - 5.09' Rec. 0.9'.
1600 - 1630	Shut down and secure rig.

Ending Depth:	Cored 5.09'	Reamed 00.00'	Drilled 0
Daily Footage:	Cored 5.09'	Reamed 00.00'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard W. Wright
Personnel On Site: 1-RSN; 5-REECo; 4-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard W. Wright
Office Report Prepared By: Richard W. Wright

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 19, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N33
Drill Rig: CME-850
Activity: No Activity
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 18, 1992 (Rig Day 4)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service and start up rig.
0830 - 0915	Core run #15 from 73.15' - 75.01' (10 min.) Rec. 1.9'.
0915 - 0954	Pull out of hole with core rods and trip in hole with Odex hammer.
0954 - 1054	Ream cycle #7 from 59.23' - 74.57'.
1054 - 1115	Trip out of hole with Odex hammer and lay down pipe.
1115 - 1200	Rig down equipment.
1200 - 1230	Lunch
1230 - 1300	Rig down equipment and move rig to USW UZ N34.
1300 - 1630	No activity.

FINAL REPORT

NOTE: Average air rates
Coring - 448 SCFM Reaming - 394 SCFM

Ending Depth:	Cored 75.01'	Reamed 74.57'	Drilled 0
Daily Footage:	Cored 1.86'	Reamed 15.34'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard W. Wright
Personnel On Site: 1-RSN; 5-REECo; 4-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard W. Wright
Office Report Prepared By: Richard W. Wright

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 19, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Tripping in hole with coring assembly
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 18, 1992 (Rig Day 59)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Service Rig and Equipment.
0830 - 0910	Pull out of hole with coring assembly. Rig up to ream.
0910 - 1146	Begin ream cycle #52. Take samples at 540.5' - 541.5' and 550.6' - 551.4'.
1146 - 1200	Broke two bags in Haz Vac. Remove broken bags.
1200 - 1230	Lunch.
1230 - 1257	Replace two bags in Haz Vac and clean filter.
1257 - 1542	Complete ream cycle #52. Total interval reamed 538.97' - 578.99', (208 min). Sample taken at 571.0' - 572.0'.
1542 - 1615	Trip in hole with bottom hole assembly and 4 stands of core rods. Rerun bit #L11, Serial #2S26868 (Christensen PDC with 18 cutters and 12 airways).
1615 - 1630	Shut down and secure rig.

CORING: Average air rate: Not applicable
Average vacuum rate: Not applicable

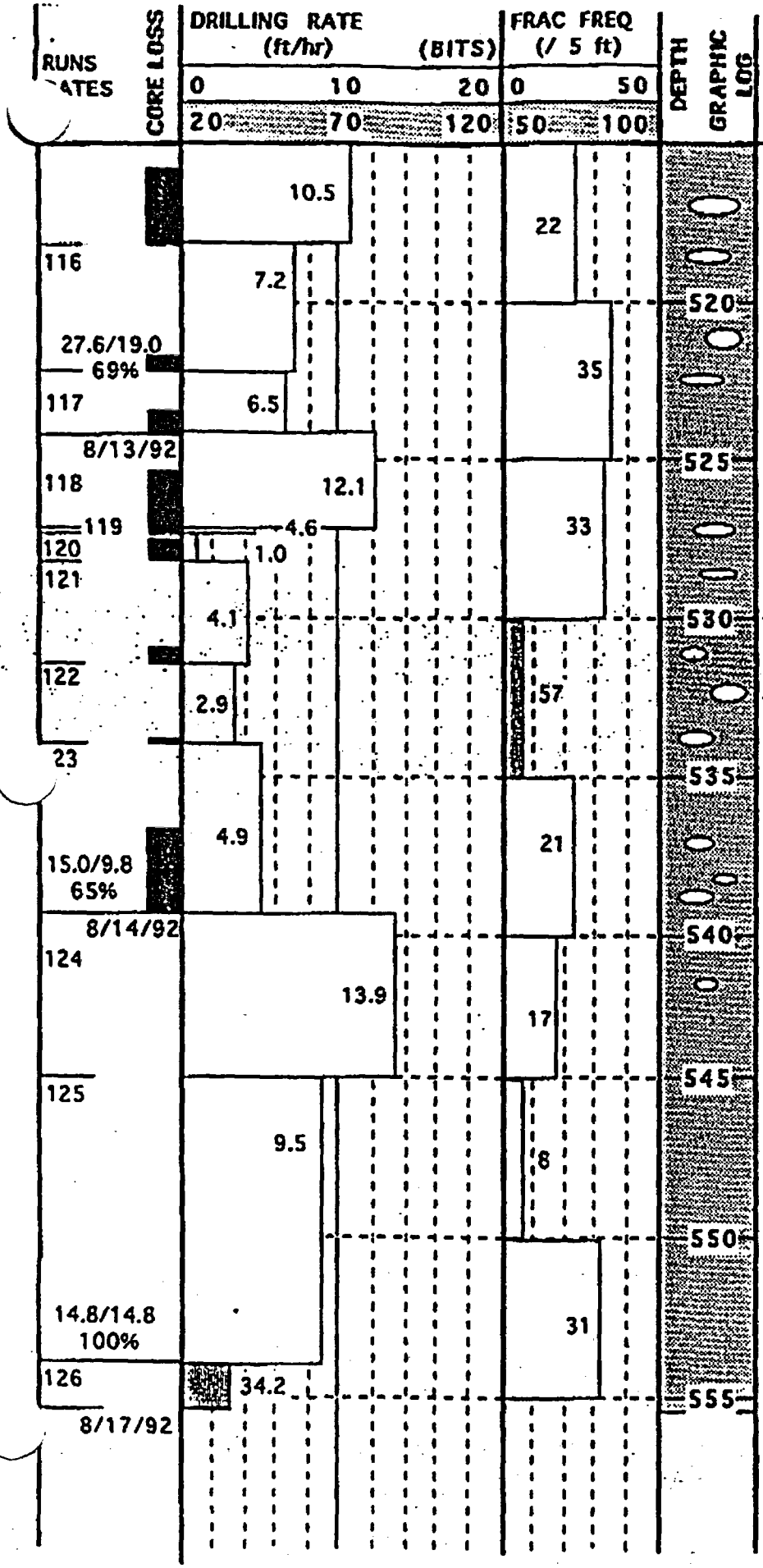
REAMING: Average air rate: 1192 SCFM.
Average vacuum rate: 1355 SCFM.

Ending Depth:	Cored 579.01	Reamed 578.99'	Drilled 0
Daily Footage:	Cored 0.00'	Reamed 40.02'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: James E. Anthony, RSN
Personnel On Site: 1-RSN; 10-REECO; 2-USGS; 3-SMF; 6-Visitors

Field Report Prepared By: James E. Anthony
Office Report Prepared By: James E. Anthony

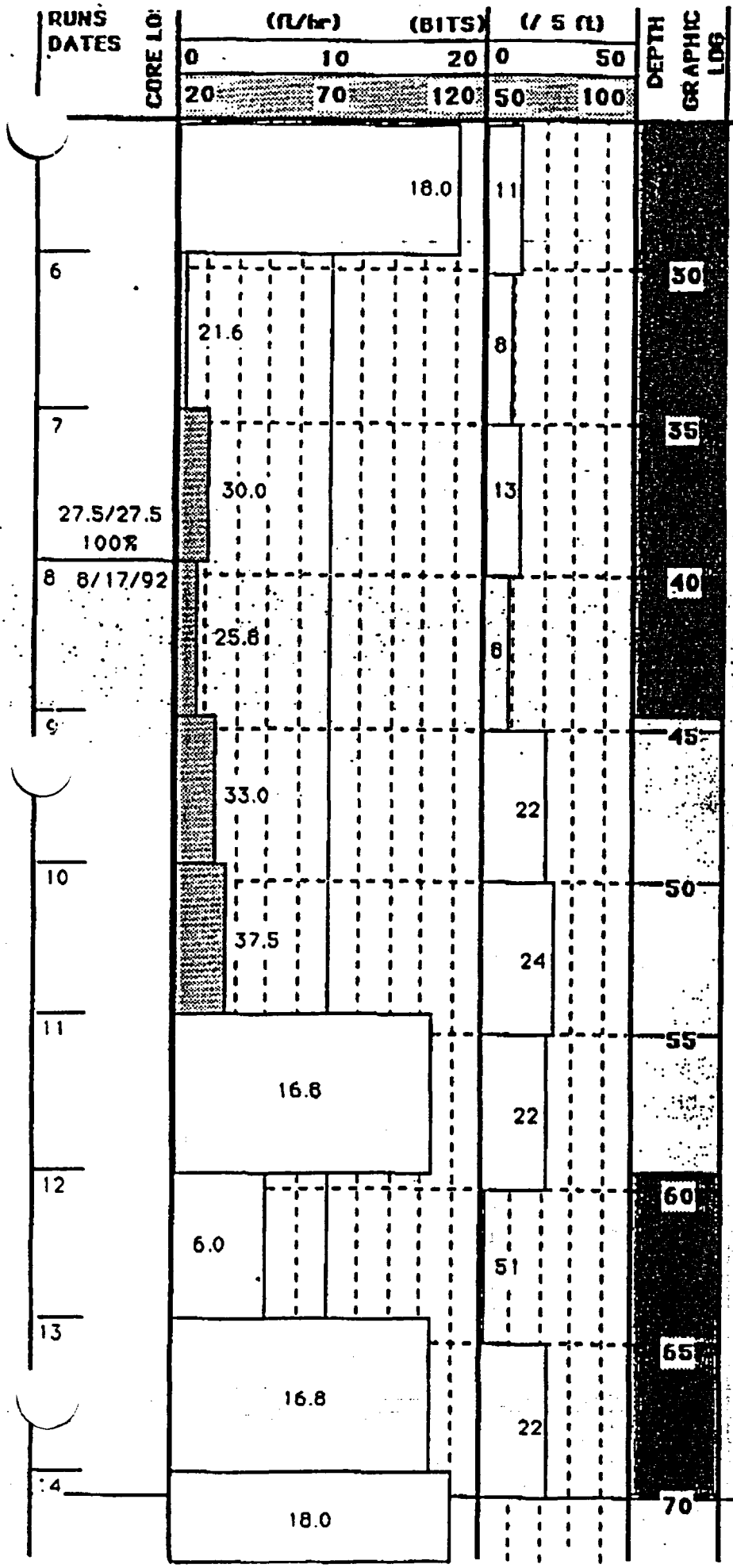
UE25 UZ-16



LITHOLOGY/ REMARK

@540.0 a nonlithophysal zone within the lithophysal zone.

USW UZN-33 Page 2 of



LITHOLOGY/ REMARKS

44.2- 59.2 Bedded tuff ashfall; grayish orange pink to light gray; nonwelded; vitric; < 5% pumice fragments; < 5% glass shards; 1-2% phenocryst.

59.2-xxx Yucca Mountain Member - Tuff ashflow; medium light gray to light brownish gray, nonwelded to partially welded; devitrified; 1% pumice

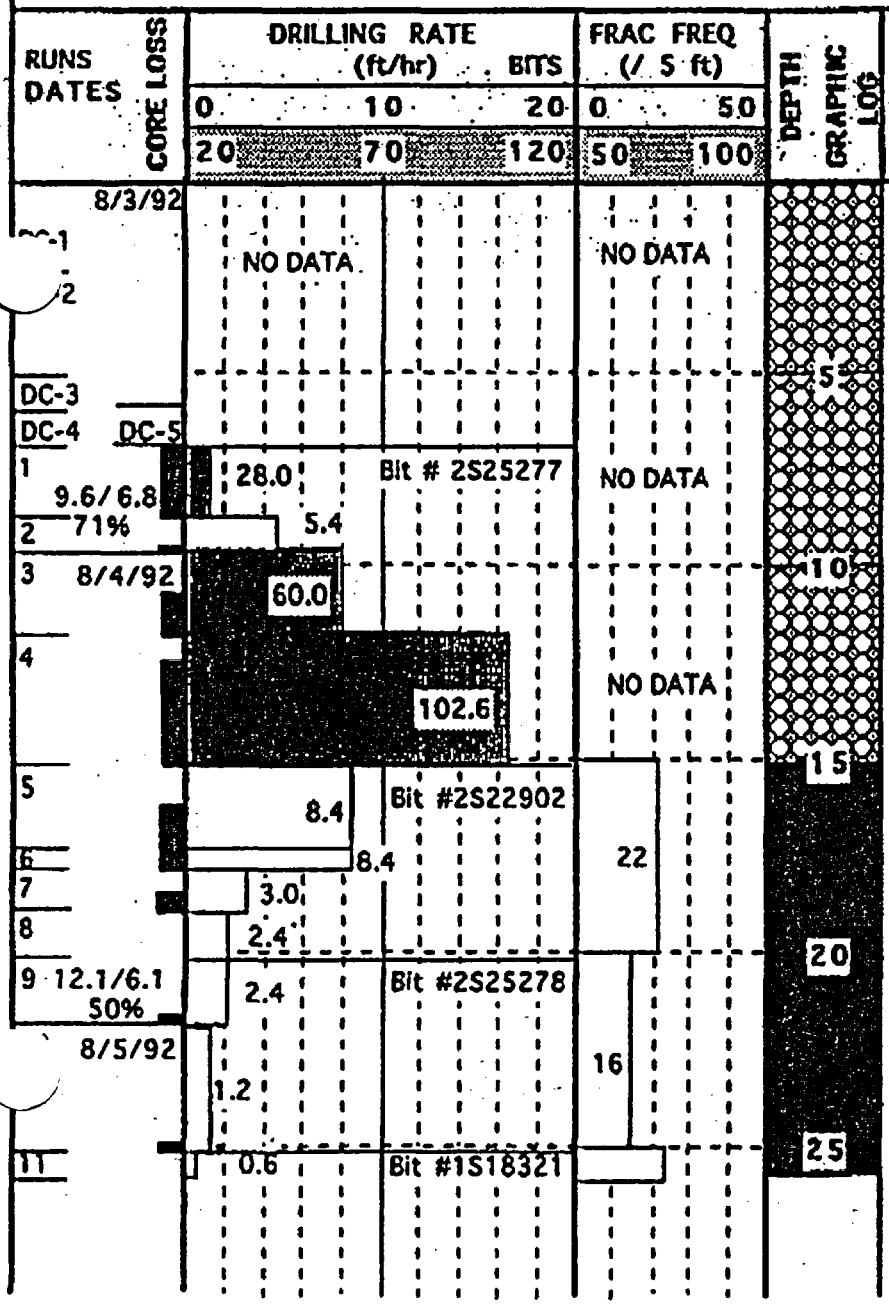
YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE BOREHOLE LOG

BOREHOLE ID: USW UZN-63
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: 2.4" HQ
DRILL DATES: 8/3/92 - 8/10/92
GROUND ELEV: 3920'
COORDINATES: N: 768,800'
E: 566,200'
TOTAL DEPTH: 60.0'
ANGLE FROM VERT: NA BEARING: NA

ALLUVIUM
NONWELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

FINAL LOG DATE
8/17/92

Logging by Drilling Support Div., Drilling Support and Sample Management Dept, T&MSS



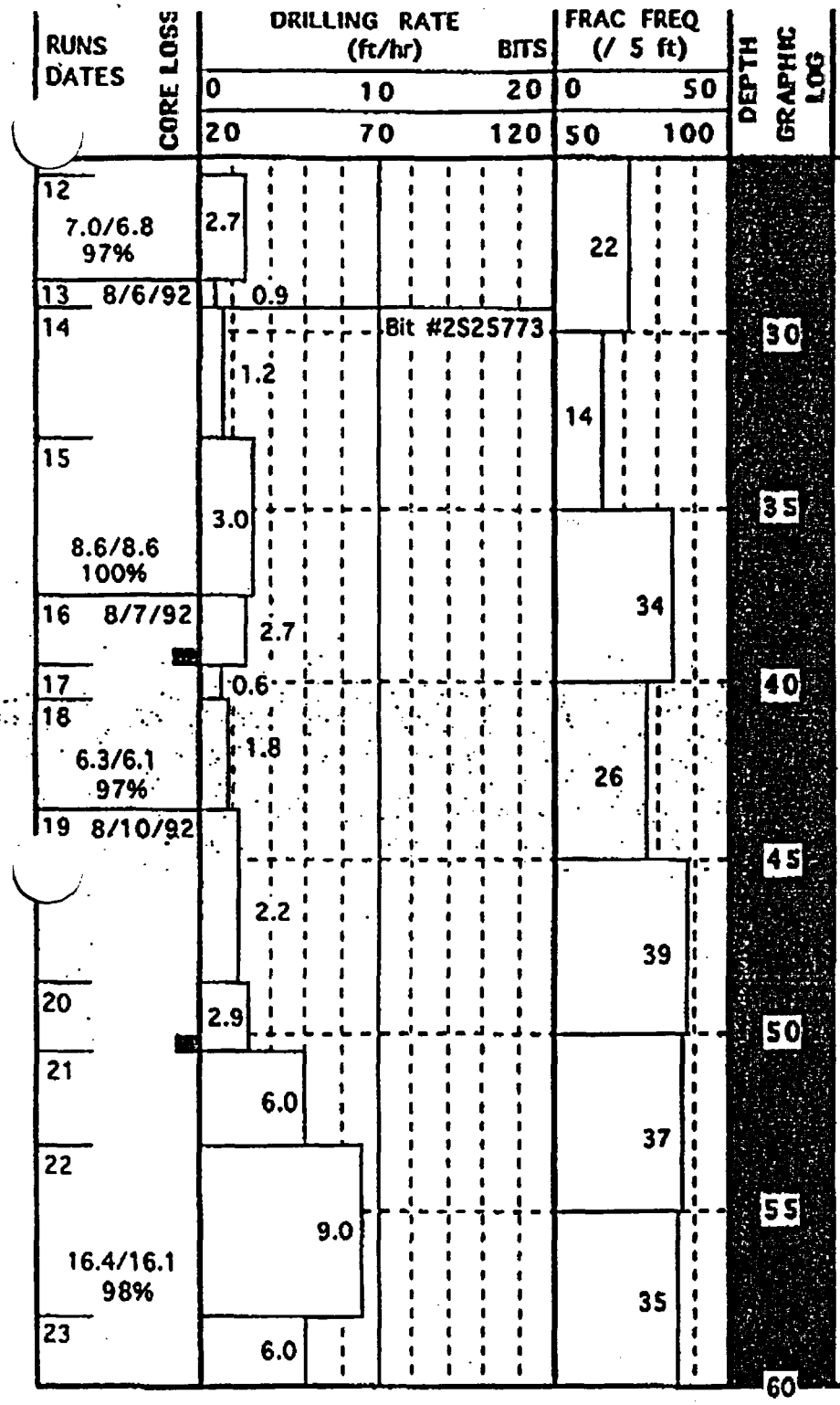
LITHOLOGY/REMARKS

0.0 - 15.0 Alluvium, brown to gray brown, sandy and silty, unconsolidated

Borehole caved in about 1 foot during DC-5.

ALLUVIUM/TIVA CANYON CONTACT @ 15.0

15.0 - 43.6 Tuff, ashflow: reddish brown to brownish gray, moderately to densely welded, devitrified; <1% pumice, 0.5 cm, flattened; 2-5% phenocrysts, sanidine, and trace biotite



43.6 - 60.0 Tuff, ashflow: pale brown to grayish brown, densely welded, devitrified; 2-5% pumice, light gray, 0.5-1cm; 2-10% lithic fragements, reddish, 0.5-2 cm; 2% phenocrysts, sanidine

TOTAL DEPTH: 60.0'
TOTAL RECOVERY: 50.5'
PERCENTAGE: 84%

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30
Date: August 18, 1992

Job Package No.: 92-03
Station: UE-25 UZ16
Drill Rig: LM300
Activity: Pulling out of hole with coring assembly
Objectives: 1)Mobilize drill rig. 2)Continuous core/drive sample from ground level to 50' minimum. 3) Vacuum drill 22 inch hole and set 16" OD casing to total depth. 4) Cement casing to surface. 5) Continuously core and ream to 1663'. 6) Prepare final location and elevation survey. 7) Install wellhead box

REPORT FOR: August 17, 1992 (Rig Day 58)

HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0902	Service Rig and Equipment.
0902 - 0944	Core run #126 from 554.02' - 555.22' (21 min), 1.0' Rec.
0944 - 1048	Core run #127 from 555.22' - 560.66' (45 min), 5.5' Rec.
1048 - 1155	Core run #128 from 560.66' - 566.03' (51 min), 5.3' Rec.
1155 - 1227	Lunch.
1227 - 1257	Core run #129 from 566.03' - 566.66' (6 min), 0.6' Rec.
1257 - 1439	Core run #130 from 566.66' - 572.79' (76 min), 6.2' Rec.
1439 - 1618	Core run #131 from 572.79' - 579.01' (66 min), 6.2' Rec.
1618 - 1630	Shut down and secure rig.

CORING: Average air rate 517 SCFM.
Average vacuum rate 1073 SCFM.

REAMING: Average air rate Not applicable
Average vacuum rate Not applicable

Ending Depth:	Cored 579.01'	Reamed 538.97'	Drilled 0
Daily Footage:	Cored 24.99'	Reamed 0.00'	Drilled 0

Drilling Rep: Richard Sowards, REECO
A/E Rep: James E. Anthony, RSN
Personnel On Site: 1-RSN; 9-REECO; 4-USGS; 3-SMF; 4-Visitors.

Field Report Prepared By: James E. Anthony
Office Report Prepared By: James E. Anthony

RAYTHEON SERVICES NEVADA

DAILY OPERATIONS REPORT

YUCCA MOUNTAIN PROJECT

Report Time: 7:30 hrs
Date: August 18, 1992

Job Package No.: 91-9, Revision 3
Station: USW UZ N33
Drill Rig: CME-850
Activity: Coring
Objectives: 1) Mobilize drill rig & drilling system. 2) Continuous core with wire line coring system to a total depth of approximately ±75'. 3) Ream down core track while coring with 6-inch bit & 5.5-inch O.D. Odex steel casing. 4) Demobilize equipment. 5) Prepared final location and elevation survey.

REPORT FOR: August 17, 1992 (Rig Day 3)

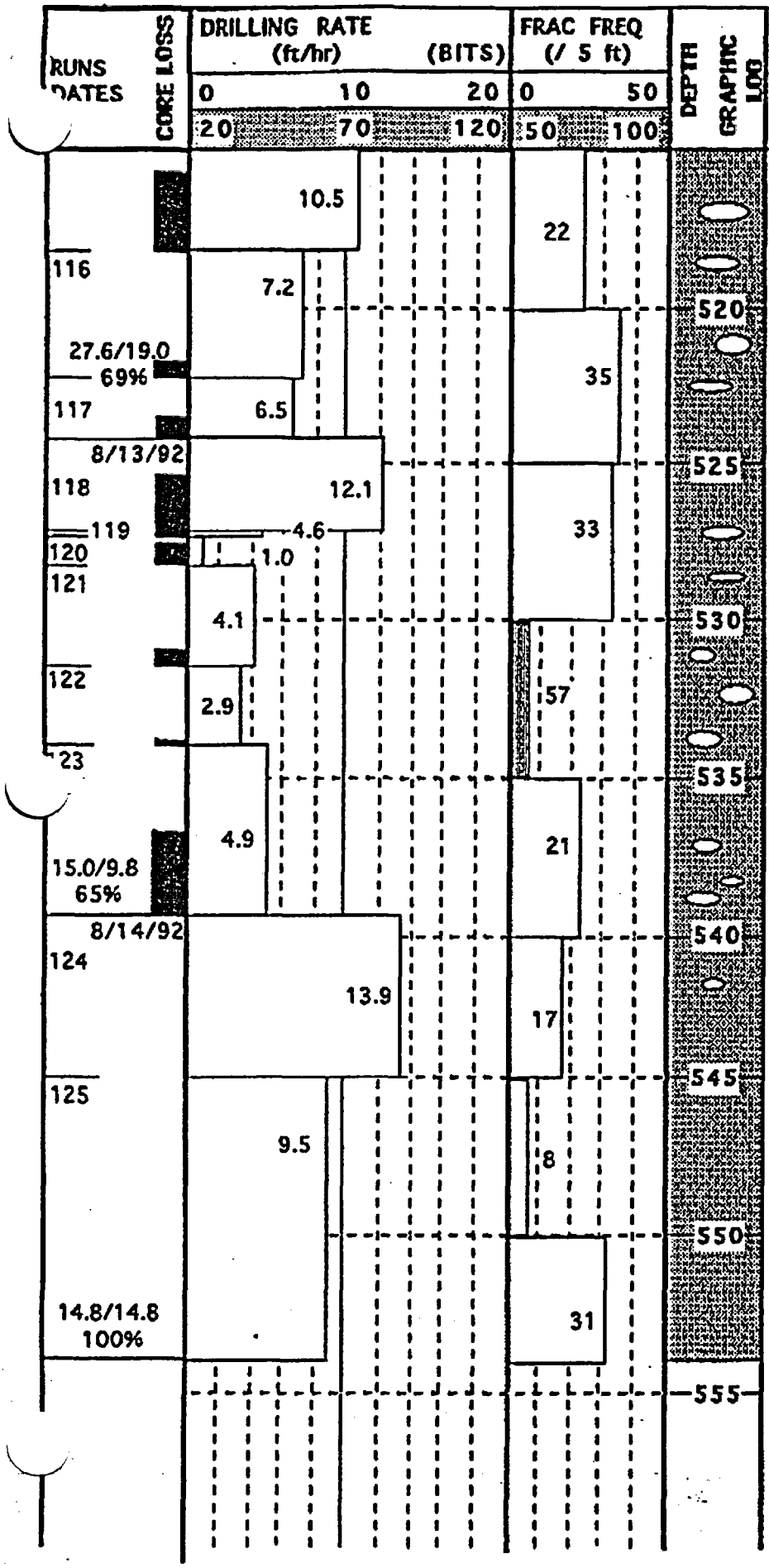
HOURS FROM - TO	OPERATIONS DESCRIPTION
0800 - 0830	Safety meeting, service and start up rig.
0830 - 0845	USGS checked hole for water. No water detected.
0845 - 0905	Trip in hole with Odex hammer.
0905 - 0944	Ream cycle #5 from 25.48' - 39.48'.
0944 - 1001	Trip out of hole with Odex hammer.
1001 - 1024	Core run #8 from 39.48' - 44.23' (11 min.) Rec. 4.8'.
1024 - 1042	Core run #9 from 44.23' - 49.23' (9 min.) Rec. 4.7'.
1042 - 1059	Core run #10 from 49.23' - 54.23' (8 min.) Rec. 5.0'.
1059 - 1125	Core run #11 from 54.23' - 59.23' (18 min.) Rec. 4.9'.
1125 - 1200	Trip out of hole with core rods.
1200 - 1230	Lunch
1230 - 1313	Trip in hole with Odex hammer.
1313 - 1431	Ream cycle #6 from 39.48' to 59.23'.
1431 - 1501	Core run #12 from 59.23' - 64.23' (52 min.) Rec. 4.9'.
1501 - 1530	Core run #13 from 64.23' - 69.23' (18 min.) Rec. 5.0'.
1530 - 1600	Core run #14 from 69.23' - 73.15' (13 min.) Rec. 3.9'.
1600 - 1630	Shut down and secure rig.

NOTE: Average air rates
Coring - 448 SCFM Reaming - 394 SCFM

Ending Depth:	Cored 73.15'	Reamed 59.23'	Drilled 0
Daily Footage:	Cored 33.67'	Reamed 33.75'	Drilled 0

Drilling Rep: Neal Walker, REECo
A/E Rep: Richard W. Wright
Personnel On Site: 1-RSN; 4-REECo; 4-SMF; 1-USGS; 4-Visitors

Field Report Prepared By: Richard W. Wright
Office Report Prepared By: Richard W. Wright



UE25 UZ-16

Page 13 of ____

LITHOLOGY/ REMARK

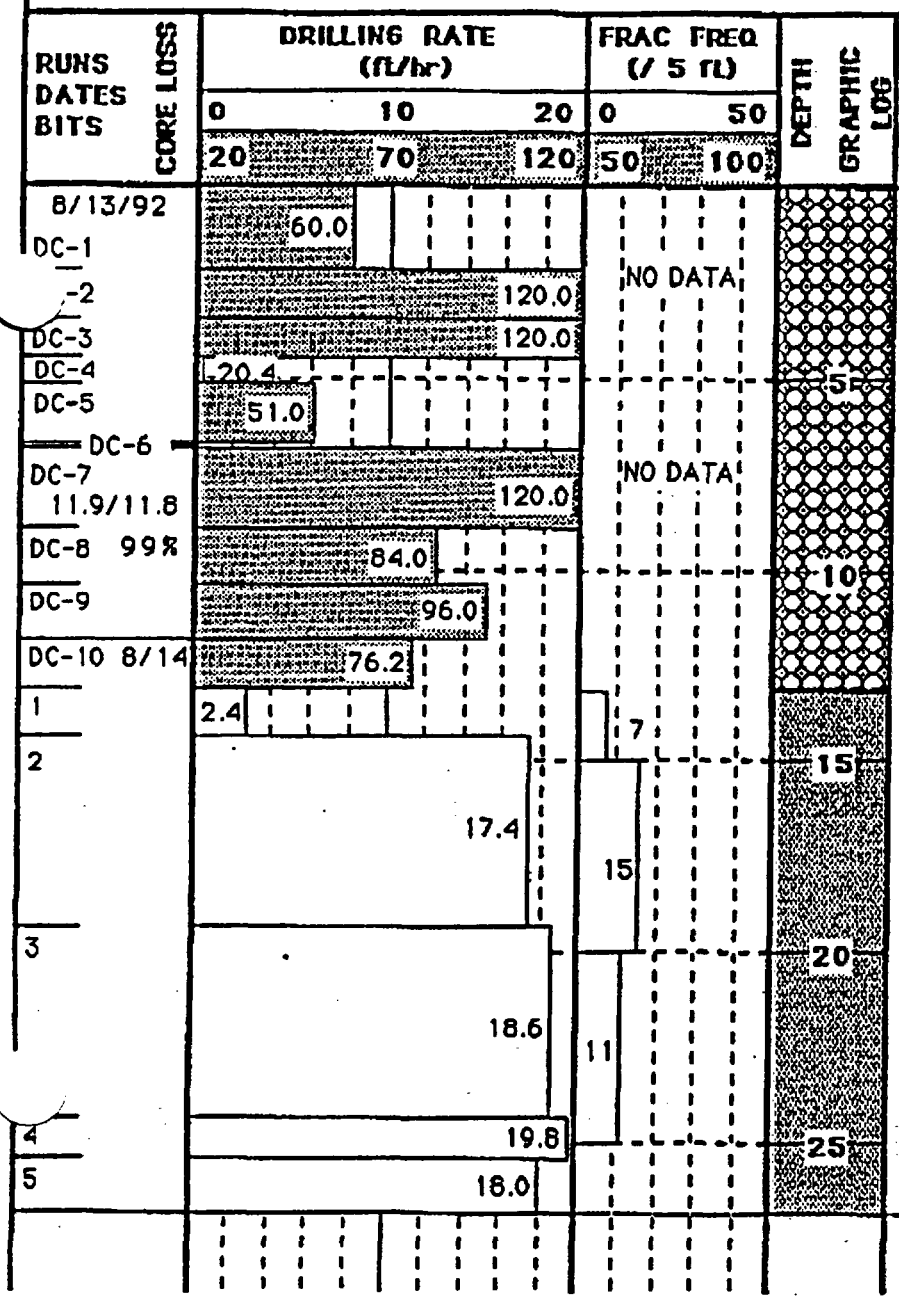
@540.0 a nonlithophysal zone within the lithophysal zone.

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE CORE LITHOLOGY/ REMARKS

COREHOLE ID: USW UZN-33
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: HX 2.4"
DRILL DATES: 8/13/92-
GROUND ELEV: 4340
COORDINATES: N: ____
E: ____
TOTAL DEPTH: ____
ANGLE FROM VERT: ____ BEARING: ____

ALLUVIUM
NON-WELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

Logging by Drilling Support Division, Drilling Support and Sample Management Dept, T&MSS



LITHOLOGY/REMARKS

0.0-13.1 Alluvium; brown to gray brown, silty, unconsolidated.

13.1 Alluvium/Tiva - Shardy Base Contact

13.1-xx.x Tuff, ashflow: pale reddish brown to pale red nonwelded, vitric; 10-30% pumice fragments;<5% phenocrysts, black glass shards, 1-5% quartz; manganese oxide on fractures.

USW UZN-33 Page 2 of

RUNS DATES	CORE LOS	DRILLING RATE (ft/hr) 0 10 20 / 20 70 120	(BITS)	TRAC TRCE (/ 5 ft) 0 50 / 50 100	DEPTH	GRAPHIC LOG	LITHOLOGY/ REMARKS
			18.0	11			
6		21.6		8	30		
7		30.0			35		
27.5/27.5 100%					40		
					45		
					50		
					55		
					60		
					65		
					70		

WEEKLY INTERACTIONS CALENDAR

STATUS OF DOE NWTRB, ACNW, AND NRC MEETINGS FOR WEEK ENDING 8/21/92

DATE/LOC.	TOPIC	TECHNICAL LEAD (SUPPORT)	CONTACT (SUPPORT)	PARTICIPANT (SUPPORT)	COMMENTS
8/25/92 Video-Conference	NRC TE: Resolution of Volcanism-related concerns	Cooper (Jerez-M&O)	Bjerstedt (LeRoy-M&O)	M&O LANL	Discuss DOE approach as identified in NRC staff reviews of SCP 8.3.1.8.1.1 and 8.3.1.8.5.1.
9/14-15/92 Las Vegas, NV (Alexis Park Hotel)	NWTRB SG&G Panel Meeting	TBD	Cooper (Hoffman-SAIC)	LANL	Update on volcanism studies. This topic was formerly planned for discussion at October NWTRB meeting.
9/16/92 Field Locations TBD	NWTRB SG&G Field Trip	TBD	Cooper (Hoffman-SAIC)	LANL	
9/17-18/92 LV/NTS/YM	NRC Site Visit: Midway Valley	Sullivan (Statton-M&O)	Bjerstedt (LeRoy-M&O)	M&O USGS	Discuss Study Plan 8.3.1.17.4.2, preliminary results, and plans for future work, and Tour Midway Valley.
9/24-25/92 Bethesda, MD	ACNW 46th Meeting		Gil (LeRoy-M&O)		Agenda TBD. May add afternoon of 9/23.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

STATUS OF DOE NWTRB, ACNW, AND NRC MEETINGS FOR WEEK ENDING 8/21/92

DATE/LOC.	TOPIC	TECHNICAL LEAD (SUPPORT)	CONTACT (SUPPORT)	PARTICIPANT (SUPPORT)	COMMENTS
9/29/92 San Antonio, TX	NRC TB: CNWRA Functional Analysis of 10CFR60		Bjerstedt (LeRoy-M&O)	M&O	Discuss CNWRA activities related to systems engineering.
10/14-15/92 Las Vegas, NV (Plaza Suite Hotel)	NWTRB Full Board	D. Harrison	Cooper (Hoffman-SAIC)	M&O LLNL PNL	Source term; 1) Concept and release mechanisms, 2) spent fuel testing, 3) PA and design implications.
10/16/92 Las Vegas, NV	NWTRB Yucca Mountain Site Tour		Cooper (Hoffman-SAIC)		
10/20/92 Las Vegas, NV	ACNW WG on Human Intrusion		Gil (LeRoy-M&O)		Discuss methodologies for assessment of potential for natural resources at YM, and relationship between such resources and potential for human intrusion.
10/21/92 Las Vegas, NV	ACNW 47th Meeting		Gil (LeRoy-M&O)		Agenda TBD.
10/22/92	ACNW Yucca Mountain and NTS Tours		Gil (LeRoy-M&O)		Agenda TBD.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

STATUS OF DOE NWTRB, ACNW, AND NRC MEETINGS FOR WEEK ENDING 8/21/92

DATE/LOC.	TOPIC	TECHNICAL LEAD (SUPPORT)	CONTACT (SUPPORT)	PARTICIPANT (SUPPORT)	COMMENTS
10/23/92	ACNW GIS Tour		Gil (LeRoy-M&O)		Tour will take place in the morning only.
10/27/92 Albuquerque, NM	WIPP Roundtable discussion - NRC observation	Boak (Van Luik-M&O)	Bjerstedt (LeRoy-M&O)	M&O SNL PNL	NRC staff observe interaction between YMPO PA and WIPP PA.
10/28/92 Carlsbad, NM	Tour of WIPP Site	Boak (Van Luik-M&O)	Bjerstedt (LeRoy-M&O)	M&O	
10/29/92 Albuquerque, NM	NRC TE: Total System Performance Assessment	Boak (Pahwa-M&O)	Bjerstedt (LeRoy-M&O)	M&O SNL PNL	Discuss methods and results of DOE PACE, TSPA, and NRC IPA.
11/4-6/92 Denver, CO (TENTATIVE)	NWTRB SG&G Panel Meeting		Cooper (Hoffman-SAIC)	M&O	Discuss ESF and repository design.
11/16-17/92 Bethesda, MD	ACNW 48th Meeting		Gil (LeRoy-M&O)		Agenda TBD
11/17/92 Rockville, MD	NRC TE: Volcanism	Cooper (Jerez-M&O)	Bjerstedt (LeRoy-M&O)	M&O LANL	Discuss DOE volcanism studies as detailed in LANL report.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

STATUS OF DOE NWTRB, ACNW, AND NRC MEETINGS FOR WEEK ENDING 8/21/92

DATE/LOC.	TOPIC	TECHNICAL LEAD (SUPPORT)	CONTACT (SUPPORT)	PARTICIPANT (SUPPORT)	COMMENTS
11/18/92 Bethesda, MD	ACNW WG Climate		Gil (LeRoy-M&O)		Discuss the potential for climate changes in Southern Basin and Range and the impact on natural processes affecting PA of potential repository at YM. Original scheduled 11/19/91, this has been rescheduled from 4/22/92.
11/18/92 Rockville, MD	Interaction Planning Meeting	Bjerstedt (LeRoy-M&O)	Bjerstedt (LeRoy-M&O)	M&O	Discuss/plan DOE/NRC interactions for first half 1993.
11/18-20/92 Las Vegas, NV (TENTATIVE)	DOE Workshop on Expert Judgment	Dyer/Boak (Younker-M&O, Van Luik-M&O, Weaver-M&O)	Simmons (Hoffman-SAIC)	M&O	Examine DOE's use of expert judgment for YMP, learn how other projects have used expert judgment, make recommendations for future use, fulfill NWTRB recommendation to hold workshop.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

STATUS OF DOE NWTRB, ACNW, AND NRC MEETINGS FOR WEEK ENDING 8/21/92

DATE/LOC.	TOPIC	TECHNICAL LEAD (SUPPORT)	CONTACT (SUPPORT)	PARTICIPANT (SUPPORT)	COMMENTS
12/16/92 Bethesda, MD	ACNW WG on PA - Phase 2 HLW Interactive PA by NRC	Boak (Van Luik-M&O)	Gil (LeRoy-M&O)	M&O SNL	Will discuss progress of Phase 2 PA effort. Also will hear briefing from DOE on status of TSPA.
12/17-18/92 Bethesda, MD	ACNW 49th Meeting		Gil (LeRoy-M&O)		Agenda TBD.
1/5-6/93 Arlington, VA	NWTRB Full Board Meeting		Cooper (Hoffman-SAIC)		M&O systems update and ESF and respository design follow-up.
2/93 or 3/93 TBD	NWTRB HG&G Panel Meeting		Cooper (Hoffman-SAIC)		Agenda TBD.
4/20-23/93 Reno, NV	NWTRB Full Board Meeting		Cooper (Hoffman-SAIC)		Agenda TBD.
6/1/93 TBD	NWTRB International Trip		Cooper (Hoffman-SAIC)		Agenda TBD.
7/12-15/93 Denver, CO	NWTRB Full Board Meeting		Cooper (Hoffman-SAIC)		Agenda TBD.
10/19-22 Las Vegas, NV	NWTRB Full Board Meeting		Cooper (Hoffman-SAIC)		Agenda TBD.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

DRILLING, TRENCHING, AND TEST PIT ACTIVITIES
8/21/92

DESIGNATION	PLANNED START DATE	PLANNED END DATE	BACKFILL DATE	YMPO SITE CONTACT	COMMENTS
Busted Butte Pavement Study	8/4/92	8/18/92	N/A	Sullivan	Map any expression of Quaternary faulting in the exposures at Busted Butte.
Midway Valley Investigations	7/22/92	TBD	N/A	Sullivan	Four (one additional is optional) gravity and Magnetic evaluation lines going East-West across Midway Valley. The work will use hand-carried instruments.
Soil and Rock Properties Test Pits (Phase II)	8/17/92	10/31/92	TBD	Williams	Excavate 41 test pits for engineering properties of planned roads, one each fields, and concrete aggregate sources. Data for design of ESF.
Fran Ridge Test Pit No. 1	8/24/92	9/15/92	N/A	Girdley	Bedrock excavation in Topopah by controlled blasting. Fracture network mapping will be undertaken.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

DRILLING, TRENCHING, AND TEST PIT ACTIVITIES
8/21/92

DESIGNATION	PLANNED START DATE	PLANNED END DATE	BACKFILL DATE	YMPO SITE CONTACT	COMMENTS
Volcanic Centers Soil Test and Sample Collection	9/16/92	TBD	TBD	Cooper	Continue examination of soil development on volcanic rocks to test results of chronology studies. Collect samples of volcanic rocks for petrology studies. This activity began July 1991 and occurs periodically.
Lathrop Wells Cinder Cone Volcanic Trenching	9/3/92	9/4/92	9/4/92	Cooper	Continuation of the volcanic studies.
Unsaturated Zone Borehole No. 16	5/27/92	12/24/92	N/A	Long	Unsaturated zone site characterization and vertical seismic profiling.
Neutron-Access Boreholes Phase II (12 boreholes)	8/3/92	TBD	N/A	Girdley	Core taken from these holes will be used by USGS for determination of moisture content and to construct tritium profiles.

BOLD INDICATES REVISIONS AND NEW INFORMATION

WEEKLY INTERACTIONS CALENDAR

DRILLING, TRENCHING, AND TEST PIT ACTIVITIES
8/21/92

DESIGNATION	PLANNED START DATE	PLANNED END DATE	BACKFILL DATE	YMPO SITE CONTACT	COMMENTS

BOLD INDICATES REVISIONS AND NEW INFORMATION

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3
QA: N/A

AUG 25 1992

J. Russell Dyer, YMP, NV
Winfred A. Wilson, YMP, Mercury, NV, M/S 717

FIELD TEST COORDINATOR'S REPORT FOR THE WEEK ENDING AUGUST 21, 1992: QUATERNARY FAULTING WITHIN THE SITE AREA INVESTIGATIONS (JOB PACKAGE 92-12)

Scope of Activity: Pavements and trenches will be excavated to provide exposures of Quaternary deposits and faults for mapping by geologists from the U.S. Geological Survey as described in Study Plan 8.3.1.17.4.6 Quaternary Faulting in the Site Area. Planned activities include excavation of new trenches and modification of existing trenches on the Windy Wash fault, Solitario Canyon fault, and Stagecoach Road fault, and modification of existing exposures of the Paintbrush Canyon fault west of Busted Butte in the sand ramps by developing pavements.

Current Status of Investigations: Clearing of pavements at Busted Butte began on August 4, 1992. The clearing is done using hand labor and a jet of air with a small amount of water added to control fugitive dust. As of August 21, 1992, three of the four pavements had been cleared.

In Crater Flat, Trench 8 and Trench CF1 were deepened and new trench SCFT-1 was excavated in alluvial fan deposits across the trace of the Solitario Canyon fault.

If you have any questions, please contact me at 794-7915.

J. Timothy Sullivan

J. Timothy Sullivan
Site Investigations Branch
Regulatory & Site Evaluation Division

RSED:JTS-5223

YMP-5

3

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3
QA: N/A

AUG 2 4 1992

J. Russell Dyer, YMP, NV
Winfred A. Wilson, YMP, Mercury, NV, M/S 717

FIELD TEST COORDINATOR'S REPORT FOR THE WEEK ENDING AUGUST 21, 1992: USW UZ-16 BOREHOLE (JOB PACKAGES 92-3, 92-4)

Scope of Activity: A borehole approximately 1700 feet in depth will be drilled using the LM-300 drilling system. The primary purpose of the hole will be for vertical seismic profile testing, although other tests such as air permeability, hydrogeochemistry, and matrix hydrologic properties are also being planned. Drilling is scheduled from May through December 1992, following pad construction in March 1992.

Week 26 Activities: A total of 73.4 feet of core was taken in the interval from 554.02 feet to 627.46 feet this week and the hole was reamed from 538.97 feet to 618.98 feet. No significant delays were caused by equipment maintenance/repair. The reduced footage cored is primarily a result of shorter core runs caused by jamming of the core barrel by high angle fractures in the core. Core lengths averaged 3.6 feet per run this week.

A transition out of the upper lithophysal into a nonlithophysal unit was noted at approximately 540 feet this week. Slower penetration rates were also noted as the rock became more difficult to cut below the transition. Coring is expected to continue in this unit for the majority of next week.

If you have any questions, please contact me at 794-7503.

Roy C. Long
Site Investigations Branch
Regulatory & Site Evaluation Division

RSED:RCL-5203

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3
QA: N/A

AUG 2 4 1992

J. Russell Dyer, YMP, NV
Winfred A. Wilson, YMP, Mercury, NV, M/S 717

FIELD TEST COORDINATOR'S REPORT FOR THE WEEK ENDING AUGUST 21, 1992: NEUTRON-ACCESS BOREHOLES

Scope of Activity: Approximately 24 shallow boreholes will be drilled/cored for neutron logging by the U.S. Geological Survey (USGS) in order to evaluate natural infiltration. Core taken from these holes will be used by USGS for determination of moisture content and to construct tritium profiles. The drilling operation utilizes an Odex drilling system, which produces HQ core and a cased hole having a diameter of approximately six inches. The drilling program is being implemented in two phases, each consisting of 12 boreholes that will take several months to complete.

Status as of August 21, 1992: Borehole USW UZN-33 was completed on August 18, 1992. Final cored depth is 75 feet; reamed depth is 74.57 feet. The hole penetrated approximately 13 feet of alluvium and 62 feet of Tiva Canyon ashflow tuff ("shardy base").

The CME-850 drilling equipment moved to USW UZN-34 and spudded the borehole Tuesday afternoon. As of end of shift on Friday, UZN-34 was cored to a depth of 69.48 feet and reamed to 56.38 feet. Based on the stratigraphy to date it is estimated that this hole will end at approximately 85 feet and should be completed early next week.

If you have any questions, please contact me at 794-7584.

W. A. Girdley

William A. Girdley
Site Investigations Branch
Regulatory & Site Evaluation Division

RSED:WAG-5209

YMP-5

Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.3.5
QA: N/A

AUG 25 1992

Carl H. Johnson, State of Nevada, Carson City, NV
Phillip Niedzielski-Eichner, Nye County, Chantilly, VA
Dennis A. Bechtel, Clark County, Las Vegas, NV
Albert C. Douglas, City of Las Vegas, Las Vegas, NV
Paul T. Prestholt, NRC, Las Vegas, NV

PRELIMINARY FIELD COMPOSITE BOREHOLE LOGS

For your information, enclosed is a copy of the Preliminary Field Composite Borehole Log for borehole UE-25 UZN-63 which was developed by the Drilling Support and Sample Management Department of Technical and Management Support Services. Drilling of the borehole was completed on August 11, 1992.

If you need additional information regarding the log, please contact Uel S. Clanton at (702) 794-7943.

Claudia M. Newbury
for J. Russell Dyer, Director
Regulatory & Site Evaluation Division

RSED:USC-5177

Enclosure:
Composite Borehole Log

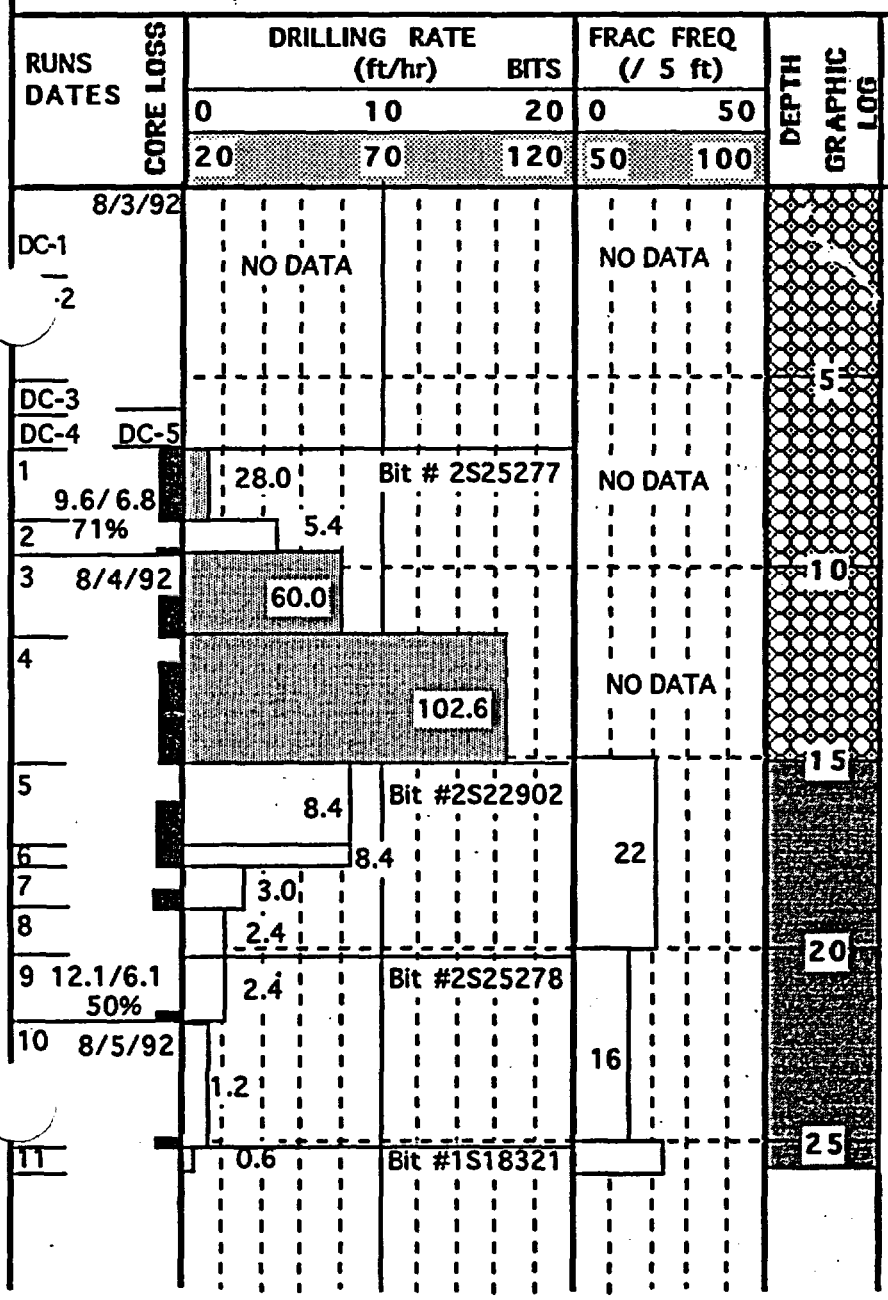
YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
PRELIMINARY FIELD COMPOSITE BOREHOLE LOG

BOREHOLE ID: UE25 UZN-63
STUDY PLAN NO: 8.3.1.2.2.1
CORE SIZE: 2.4" HQ
DRILL DATES: 8/3/92 - 8/10/92
GROUND ELEV: 3920'
COORDINATES: N: 768,800'
E: 566,200'
TOTAL DEPTH: 60.0'
ANGLE FROM VERT: NA BEARING: NA

ALLUVIUM
NONWELDED
PARTIALLY WELDED
DENSELY WELDED
VITROPHYRE
BEDDED TUFF

FINAL LOG DATE
8/19/92

Logging by Drilling Support Div., Drilling Support and Sample Management Dept, T&MSS



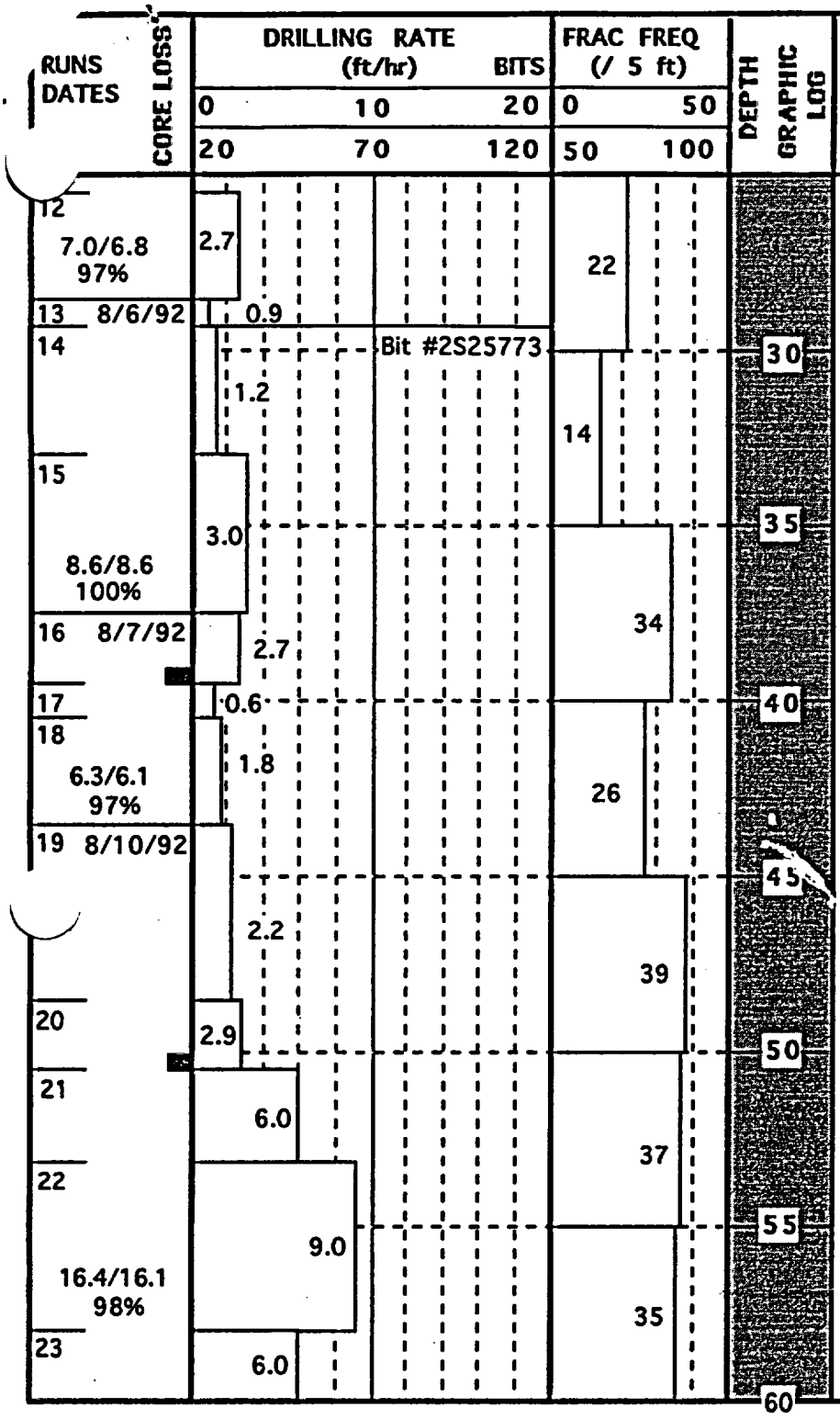
LITHOLOGY/REMARKS

0.0 - 15.0 Alluvium, brown to gray brown, sandy and silty, unconsolidated

Borehole caved in about 1 foot during DC-5.

ALLUVIUM/TIVA CANYON CONTACT @ 15.0

15.0 - 43.6 Tuff, ashflow: reddish brown to brownish gray, moderately to densely welded, devitrified; <1% pumice, 0.5 cm, flattened; 2-5% phenocrysts, sanidine, and trace biotite



UE25 UZN-63 Page 2 of 2

LITHOLOGY/REMARK

43.6 - 60.0 Tuff, ashflow: pale brown to grayish brown, densely welded, devitrified; 2-5% pumice, light gray, 0.5-1cm; 2-10% lithic fragements, reddish, 0.5-2 cm; 2% phenocrysts, sanidine

TOTAL DEPTH: 60.0'
TOTAL RECOVERY: 50.5'
PERCENTAGE: 84%