

PDE-(1) *see pocket*
LPDE WM-10(2) *For enclosure*
WM-11(2)
WM-16(2)

NUCLEAR WASTE CONSULTANTS INC.

8341 So. Sangre de Cristo Rd., Suite 14
Littleton, Colorado 80127
(303) 973-7495

WM-10
Record File
D1021

WM Project 10, 11, 16
Bucket No.

PDR ✓
XPDR ✓ (B.N.S.)

x Pohle

June 12, 1987

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009/2.5/TTI.003
RS-NMS-85-009
Communication No. 165

U.S. Nuclear Regulatory Commission
Division of Waste Management
Geotechnical Branch
MS-623-SS
Washington, DC 20555

Attention: Mr. Jeff Pohle, Project Officer
Technical Assistance in Hydrogeology - Project B (RS-NMS-85-009)

Re: Semi-Annual Update of BWIP Numerical Evaluation Report

Dear Mr. Pohle:

This cover letter transmits to the NRC staff Terra Therma Inc.'s (TTI) semi-annual update of the Numerical Evaluation Report for BWIP (Subtask 2.5). The report has received management and technical reviews by M. Logsdon and A. Brown of Nuclear Waste Consultants. The reports have been completed under TTI's quality assurance procedures in compliance with NWC's project-specific QA Plan.

This update report includes three reports for Staff review and comment:

Technical Report	Title	Author
11	Evaluation of a Large-Scale Tracer Test Conducted in Grande Ronde Basalt	Galloway/ Marinelli
13	Effects of Repository Heat on Groundwater Flux: One-Dimensional Analysis	Marinelli
14	Significance of Lateral Boundaries on Hydraulic Heads at BWIP	Kraeger- Rovey

Additional reports currently in progress and which should be completed during the next two months include:

Technical Report	Subject	Author
10	Effect of Variable Density on Heads	Marinelli
12	Lumped Parameters in Evaluating GWTT	Brown
15	Effects of Vertical Boundaries on Hydraulic Heads at BWIP	Kraeger- Rovey

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WM Project: WM-10,11,16
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WM Record File: D1021
LPDR w/enc1

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for Encl.*

June 12, 1987

16	Stabilization of Gradients at BWIP	Galloway
17	Hydraulic Continuity Across the RRL	Basse

Submission of this update report completes the contract deliverable for Subtask 2.5 at this time. Please note that this is the final required deliverable for Subtask 2.5 under the current contract. However, TTI will continue to pursue the Technical Report series over the remaining months of the current contract, as part of the data needs assessment effort in preparation for the BWIP SCP. The results of these efforts will be forwarded to the Staff as they are completed as deliverables under Subtask 2.5, and the results will be available for submission as Subtask updates on a semi-annual basis if the Staff does in fact extend the current contract.

If you have any questions concerning this letter or the attached report, please contact me immediately.

Respectfully submitted,
NUCLEAR WASTE CONSULTANTS, INC.



Mark J. Logsdon, Project Manager

Att: BWIP Numerical Evaluations - Semi-Annual Update Report (Subtask 2.5)

cc: US NRC - Director, NMSS (ATTN: PSB)
HLWM (ATTN: Division Director) - 2
Mary Little, Contract Administrator
HLWM/TRB (ATTN: Branch Chief)

J. Minier, DBS
L. Davis, WWL

dc: M. Galloway, TTI

Nuclear Waste Consultants, Inc.



TERRA THERMA, INC.

WATER CONSULTANTS AND ENGINEERS

8341 S. Sangre de Cristo Rd., Suite 14, Littleton, CO 80127

(303) 973-7492

*All to do. Poble
for Logsdon 6/12/87
D1221*

June 8, 1987

Nuclear Waste Consultants
8341 S. Sangre de Cristo Road
Littleton, Colorado 80127

Att: Mark Logsdon, Project Manager

Re: Subtask 2.5 Update

Dear Mr. Logsdon:

This letter and the attached documents constitute the Subtask 2.5 Update, as required by the NRC-NWC scope of work and contract for the Technical Assistance Program.

Terra Therma personnel are presently engaged in the analysis and completion of numerous Technical Reports under the 2.5 Subtask heading. At this time, three of the reports have been completed and are listed.

Technical Report Number	Title	Author
11	Evaluation of A Large-Scale Tracer Test Conducted In Grande Ronde Basalt	Galloway/ Marinelli
13	Effects of Repository Heat on Ground Water Flux: One-Dimensional Numerical Analysis	Marinelli
14	Significance of Lateral Boundaries on Hydraulic Heads at BWIP	Rovey

Additional Technical Reports which are in progress and should be completed during the next 1 to 2 months, include:

Technical Report Number	Subject	Author
10	Effect of Variable Density on Heads	Marinelli
12	Lumped Parameters	Brown
15	Effect of Boundaries on Vertical Heads/Gradients	Rovey
16	Stabilization of Gradients at BWIP	Galloway
17	Hydraulic Continuity Across the RRL	Basse

If we can provide any additional information or clarification, please do not hesitate to call us.

Sincerely,
TERRA THERMA, INC.



Michael Galloway
Project Manager

ATT



TERRA THERMA, INC.

WATER CONSULTANTS AND ENGINEERS

8341 S. Sangre de Cristo Rd., Suite 14, Littleton, CO 80127

(303) 973-7492

June 8, 1987

Nuclear Waste Consultants
8341 S. Sangre de Cristo Road
Littleton, Colorado 80127

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Sincerely,
TERRA THERMA, INC.



Michael Galloway
Project Manager

ATT



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WATER CONSULTANTS AND ENGINEERS
