

UNIVERSITY OF UTAH
RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
391 CHIPETA WAY, SUITE A
SALT LAKE CITY, UTAH 84108
801-581-5283

November 29, 1978

MEMORANDUM

TO: State Coupled Core Group
FROM: Duncan Foley
SUBJECT: Notes from Core Group meeting, 13 Nov. 78, Idaho Falls
ATTENDEES: C. Nichols, L.L. Mink, G. Berry, P.M. Wright, D. Foley

The primary topic was production of the individual state maps, with other topics mentioned briefly.

Maps

- Simultaneous publication of a geothermal resource map directed toward the general public and a map for the scientific community is anticipated. The public map will stress interpretation of the data sets, while the scientific map will emphasize presentation of data.
- It was generally agreed that due to the broad range of sources from which the data will be gathered, it is appropriate to give prominent billing to the state agencies as compilers, and cite contributors for their specific data sets. It is hoped that this will eliminate any conflicts about authorship.
- It was decided to try shaded relief maps as bases for the public maps, and use topographic bases on scientific maps. It is hoped that the shaded relief maps will be more depictive to the general public. Plates for these maps are available from the USGS in Denver. The USGS schedule for digitizing state topographic base maps has not been finalized; if DOE and USGS schedules are compatible, an attempt will be made to use the updated maps; if the schedules are not compatible, the best available base map at the time of publication will be used.

The data sets that are anticipated to be presented on each map are:

Public Map

- shaded relief base with roads, towns, rivers, countries, township-range, etc.
- prohibited areas - National Park and Monuments, etc.
- KGRAs
- Geothermal data:
 - appropriate simplified geology
 - springs
 - wells
 - Hi T
 - moderate T
 - low T } areas and interpretations (qualitative and quantitative)
- areas of present use
- OR data

Scientific Map

- topographic base, USGS digitized (if available), with roads, towns, etc.
- prohibited areas-National Parks and Monuments, etc.
- KGRAs
- Geothermal Data:
 - springs
 - wells
 - heat flow
 - spring deposits
 - faults/lineaments
 - earthquake epicenters
 - Ha, As, U, S deposits/prospects
 - water quantity and quality
 - geochemical thermometry
 - High T
 - moderate T
 - low T } areas and interpretations (include but distinguish potential areas)
- igneous systems
- volcanic centers and flows (young)
- thermal gradients
- other selected geology
- areas of present use
- OR data
- PI data
- heat contents
- other (depth to resources, etc.)

-Standardization of these data sets will be important. Well and spring data and symbols should be as uniform as possible. It should be possible to coordinate data sets handled by NOAA; other sets may vary slightly from state to state.

-On specific data sets:

- 1) Faults and lineaments need to be tested for relevancy to resource areas.
- 2) The "Sammel-Foley" areas, although adequate for Circular 790, will need to be redone for these maps.
- 3) Power lines and gas lines should not be depicted - in addition to promoting use of these other energy sources, the clutter nuisance of these data, on a map with many other more valuable data sets, would probably exceed any depictive values.
- 4) The lava flow data set will become public with the publication of the maps in Circular 790; refinement may not be available from the USGS.

-In each state:

Arizona - NOAA will be involved

With preliminary map already published, it will probably be more than a year before the next edition is ready.

Colorado - NOAA will be involved

Dick Pearl is eager to publish; a meeting to discuss the map will be held in the next 2 months (early January?).

Idaho - target data for publication is April

First map meeting was held in November.

NOAA has (or will have soon) base map (updated, digitized), roads, geology, older heat flow data, wells and springs, spring deposits.

Montana - scale needs to be resolved - if 1:500,000, will require 2 sheets, but 1:750,000 could be done on one sheet.

Well temperature data needs to be assessed.

Publication probably during FY 79.

Nevada - doing preliminary map on their own

Available in 6 mos.(?)

New Mexico - NOAA will be involved

Data sets and routes need to be identified.

N. Dakota - no map during FY 79.

S. Dakota - no map during FY 79.

Utah - will be second digitized base map available from the USGS.

NOAA will be involved

Data sets start to be available in late Dec. or Jan.

Wyoming - NOAA will be involved.

Preliminary map during FY 79.

Map Action Items:

- A tracking document for the progress of each state will be developed by ESL.
- ESL will prepare a memo to state contractors on present thoughts about the maps, including alternatives on the depiction of water quantity, quality, and temperature data for springs and wells.
- Liability problems of KGRA designation, drilling dry holes, etc., need to be identified in each state (these problems may not exist or fears of them may be overrated).
- Data routes need to be identified for New Mexico.
- NOAA will obtain several base maps and other plates for Idaho, and will investigate depiction problems.
- In future meetings with state agencies, it should be emphasized that NOAA will assist if requested with production of preliminary maps, but NOAA involvement will be stronger in the production of second-generation maps.
- A strong ESL coordination role will be needed to insure that "state line faults" are kept to a minimum.

On Other Topics:

- USGS circular 790 has largely been proof read, with publication in mid- or late-January likely.
- Any heat pump applications from DGE efforts should concentrate on higher-than-normal thermal gradient sites - normal gradient work is being handled by DOE Conservation Division.
- Clay Nichols expressed that, where appropriate, state agencies should publish their own bulletins or reports, in addition to sending copies for distribution through DOE channels (NTIS, etc.); DOE support should be cited for these studies.
- ESL, after DGE reorganization, will rework the State Coupled Program management document; it will be sent around within DGE-ID and DC for further comments.
- ESL, DGE-ID, and other appropriate parties will prepare a "cook book" of DOE environmental, procedural, and reporting requirements.
- Coordination with USGS WRD needs to be maintained and enhanced, especially in S. Dakota and other areas with Madison Formation type aquifers; DGE-ID will initiate contact.

-Need for collection of well temperature data was emphasized; such data collection would be relatively inexpensive, and in states such as Colorado where no water temperature records are maintained, these data might help identify "new" thermal sites (in Utah and Idaho, where literature search and some field measuring have been done, approximately 1500 and 1000 thermal sites have been identified respectively). The estimated cost is approximately \$45K per state (FY 81 funding?).

Duncan

Duncan Foley

DF:srm

2/20/79

w/ M. Malloy
P. Grim
G. Berry
D. Clark

L.L. Mink
M. Wright
D. Foley
G. Brophy

J. Swanson

T

- Berry Spring list (no well data) $\geq 20^{\circ}\text{C}$
cf w/ Warnung's # 1790
quite up to date, but no detail (just location verification)
NOAA wants to publish
possibly w/ map to accompany
Brophy suggests an eastern US equivalent
GROY FEDERAL
VPI

T

- DOE/DGE emphasis on map publication

Idaho
Utah

F

G+B

Idaho Map

NOAA received data from

- 1) Johns Mitchell
- 2) TD (most of data)

in several weeks the map should be reviewed
by core group

map publication \approx 4 mos.

\approx 6,000 point data wells + springs

Source of heat flow data - Blackwell?
letter from DOE to Blackwell

- A.I.

Blackwell also has HF data in Oregon + Wa.
Idaho map work include - if don't get data soon
ordered shaded relief base
will take another month
SRP review - w/ Clay et al to establish "grey areas" w/ IDWR, USGS etc.

AI

GB

Colorado

Ordered shaded relief base - will have in a month

T

Discussion of critical need for diill ^{log T₀} data

no / little reporting requirements

could vastly increase resource base

80°F H₂O is not warm to a duckler

(but ideal for space heating)

This type of data may be written into STATE'S contracts

T

Preliminary maps

Should be 1:500,000 not 1:1,000,000

so public can locate themselves

T

Need for states to review NOAA's compilations

NOAA's approach: maps being made for the State agency
(not DOE, ESC etc.).

this will promote cooperation

Map published w/ a State agency report

Idaho map = IDWR Bulletin

*

T ?

Use of color separates rather than digital data for preliminary maps

in interest of time - most states could get out a map in one yr.

then use digitized bases for technical maps

aim for JAN 1980 for most preliminary maps

could then use as "evidence" for Congressional

budget hearings for FY 81

SCHEDULE

Digitized Base Geothorium

Preum Map
10/79

Public
?

Scientific
?

F79 AK

F79 AZ

F79 CA
CO
HAW

F79 ID

F79 MT

For P 79
P 79 NM

ND

P 79 OR

F 79 SD

Ut.

Wa

Wy

3/78

12/79

12/79

?

?

?

—

3/80

3/80

?

?

?

—

6/79

6/79

to NOAA 10/79

12/79

12/79

5/79

3/80

3/80

5/79

7/79 (data to NOAA)

?

?

?

2/79

2-3/79 (data to NOAA)

?

?

?

5/79 - data to NOAA

7/79

7/79

F4 80

?

?

F4 79 (end)

F4 80 ? end

F4 80 ?

Most of these will be at 1:500,000

except AK, Ca, MT

Ignore TD data for preliminary base line data
for preliminary maps

Given expressed need for data from the states

will require coordination

(let those doing own preliminary map proceed w/out
NOAA):

NV

OR

NM(?) (skewed towards scientific)

T

Best short term preliminary maps w/ NOAA

Co.

UT
(WY?)

Id

MT

WY

WATSTORE DATA

data can't be verified

AI

Given asked whose responsibility to "prod" states to give
data to NOAA

Geotherm Progress

- Az - still missing some long/lat
- Ca - state split, data good
- Co - good data - only have spring data (is this all that's available?)
- Io. - Mitchell hasn't sent much (not coded yet)
- Mt - not much yet - some spring data ≈ 75 pts
- NV - good ≈ 400 pts $> 35^{\circ}\text{C}$
- NM - bad data, bad lat/long, no water quality
- Or. - small but good
- Ut - some missing lat + long - new batch received
- Wa - rotten - missing lat/long
- WY - ≈ 60 pts. (springs)

Co + NV farthest along
need to communicate to NOAA which states have the
most data

UNIVERSITY OF UTAH
RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
391 CHIPETA WAY, SUITE A
SALT LAKE CITY, UTAH 84108
801-581-5283

February 20, 1979

AGENDA

State Coupled Project Core Group

1. Phase I state maps -production schedules
editorial approaches
2. Berry spring list update
3. FY 80 - approaches to Phase II
4. Other topics

2/20/79

w/ Ray Mink, Mike Duncan

RE: Core Group

Clay's requests

- push publ. of individual state maps
i.e. scheduled + push to meet deadlines
good for budget (perhaps for state \$ input too)
- maps are high priority
stress this to states

- 790

Jack upset over
cut out $< 90^\circ C$

30% scaling down of geothermal resource base

ESL publication of low T° resources

or USGS quick up-date of 790

USGS problem w/ WD (groundwater resources i.e. $< 90^\circ$ and Geothermal Division w/ mineral resources $> 90^\circ$)

extra \$ for states to input?

Form working group at ESL

would consult w/ USGS as a steering committee
best to have USGS publish the work

Ultimate time frame is 1 yr.

present 1st cut data at Reno GRC

March 1, 1979

MEMORANDUM

TO: State Coupled Core Group

FROM: Debra Struhsacker and Duncan Foley

SUBJECT: State Coupled Core Group Meeting

Date of Meeting: February 20, 1979

Place: ESL, Salt Lake City, Utah

Purpose: Discussion of State Coupled Project and map production

Attendees: G. P. Brophy; DOE/DGE, Washington, D.C.
L. L. Mink; DOE/DGE, Idaho Falls, Idaho
M. W. Molloy; DOE/DGE, San Francisco, California
P. J. Grim, G. W. Berry, D. Clark; NOAA/NGSDC, Boulder, Colorado
J. Swanson; USGS, Menlo Park, California
P. M. Wright, D. Foley, D. W. Struhsacker; ESL/UURI, Salt Lake City, Utah

General and Business

1. NOAA has received the Idaho data from John Mitchell (IDWR) and the digitized base map from the USGS/TD. The map should be ready for review by the Core Group in several weeks. Approximately 1,000 well and spring point data will be shown. Although Blackwell has the Idaho heat flow data, this information may not be available in time to be included on the map. The Idaho map will be published in about four months as an IDWR Bulletin.
2. NOAA has ordered the shaded relief base maps of Colorado and Idaho from the USGS. Delivery time for shaded relief maps is about two months.
3. J. Swanson reviewed the status of the GEOTHERM file for each state:
AZ- incomplete data set, still missing longitude and latitude for some sites;
CA- good data set;
CO- good spring data set; the lack of well data is disturbing;
ID- Mitchell has compiled site, temperature and geochemical data, but has not yet coded these onto GEOTHERM forms;

- MT- incomplete data set, contains only 75 spring data points;
- NV- good data set for sites with $T > 35^{\circ}\text{C}$. The coded forms for the 20° to 35°C entries were recently submitted;
- NM- poor data set, many sites lack longitude, latitude and water quality information;
- OR- good data set although not yet complete; many springs shown on state map are not included;
- UT- incomplete data set, some sites lack longitude and latitude, a new batch of entries was recently received;
- WA- poor data set, missing longitude and latitude from wells;
- WY- incomplete data set, contains only about 60 spring data.

J. Swanson feels that Colorado and Nevada have the most complete data sets.

Technical

1. Both G. P. Brophy and L. L. Mink stressed the need for immediate tangible results from the State Coupled project, not only to foster public interest in geothermal energy, but to assure future Congressional funding for the program. They suggested that a new goal of near-future map publication should be adopted by the State Coupled project. The details of this discussion follow:
 - The target date for map publication is January 1980 so that these maps may be used during the Congressional budget hearings for FY 81. A chart indicating tentative scheduling for map publication is included with this meeting report.
 - These maps should be aimed towards the public and should not be cluttered with unnecessary technical data. Scientific maps could be published later.
 - In most cases, a 1:500,000 shaded relief base map showing roads, towns, rivers, counties, and township and range will be used. The scale will be different for the Alaska, California and Montana maps.
 - Other data appropriate for this public map might include:
 - prohibited areas (National Parks and Monuments, etc.)
 - KGRAs
 - Spring and well data (including temperature and water quality indications)
 - areas of present use.
 - Nevada and Oregon will probably produce a map without help from NOAA.
 - The following states will probably enlist aid from NOAA in map publication:

Colorado
Utah
New Mexico (?)

Idaho
Montana
Wyoming.

-Since the Colorado and Utah GEOTHERM files are relatively complete (i.e. not much new FY 79 data is anticipated), NOAA will work on these state maps first. New Mexico(?), Idaho, Montana and Wyoming will follow.

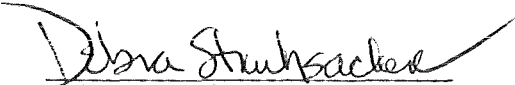
-Map publication schedules remain in question for California, Hawaii, North Dakota and South Dakota.


-In order to expedite map production, NOAA will use color separates rather than the USGS/TD digitized base maps as originally planned. The digitized bases will later be used in preparing the scientific maps.

2. P. J. Grim emphasized NOAA's desire to work closely with each state; NOAA is producing the maps for the state agencies, not for DOE, ESL, or other groups. In some states the map may be published as part of a state agency bulletin or report.
3. P. M. Wright stressed the need for improved temperature data from water wells. Most states presently have meager or nonexistent reporting requirements. This type of information could dramatically increase the known geothermal resource base. The task of compilation of this type of data may be written into future state contracts; estimated cost is \$50,000 per year per state.
4. The "Berry spring list" is now cross referenced with Waring's numbers and Circular 790. NOAA hopes to publish this list, perhaps in conjunction with a map showing the 1500 springs on the list. This list only includes data for springs with $T \geq 20^{\circ}\text{C}$. G. P. Brophy suggested that an equivalent list of spring data for the eastern U.S. should be compiled. Information for this list could be obtained from VPI, Gruy Federal and LASL. The Core Group agreed that it is important to publish a map with data from the eastern states.

Action Items

1. DOE may need to write Blackwell requesting release of his heat flow data for Idaho and possibly Oregon and Washington.
2. DOE/ID will organize a meeting to review the Idaho map plots.
3. P. J. Grim expressed the need for coordination of data submittal from the states. He requested clarification of whose duty it is to assure transfer of data from the states to NOAA.


Debra Struhsacker


Duncan Foley

TENTATIVE MAP PUBLISHING SCHEDULE

	Digitized Base	Preliminary	Public	Sci	
AK	Sept 79 (?)	Oct 79 (?)	Oct 79 (?)	Oct 79	Some data available now, no prelim? overlays?
AZ	July 79	Mar 78	Dec 79	Dec 79	
CA	?	?	?	?	
CO	Dec 79	July 79	Mar 80	Mar 80	prelim will have public emphasis
HI	?	?	?	?	
ID	Feb 79	-	June 79	June 79	in progress
MT	Dec 79(?)	to NOAA, 1 Oct 79	Dec 79	Dec 79	Use old base
NV	FY80	May-June 79	July 79	data to NOAA, July 79	Prelim map directed toward public
NM	Dec 79	Ap 79(?) May	Mar 80	Mar 80	If new base is avail?
ND	FY81	?	?	?	Program just starting
OR	FY80-81	April 79	some data to NOAA -in part	by April 79	FY80 for public and sci. maps?
SD	FY82	?	?	?	no program in place
UT	May 79	data to NOAA, 1 May?	July 79	July 79	Just public in 2 mos.
WA	FY81	FY80	?	?	
WY	June 80	FY79 end(?)	FY80? end	FY80? end	

NOTE: This chart is preliminary, and involves some changes that resulted from the state team meeting. It does not, however, in all cases reflect the new emphasis on short-term publication of public maps.

w/ Foley + Wright

3/1/79

RE: STATUS of STATES in STATE Coupled Program

Need to clarify ESL role in N. Mexico

Amount of weight are conversations w/ teams

State report-editing requirements?

"Open-filing" announcement procedures for states

Control of Phase II dual-site selection
w/ DOE + ESL

Maintaining contact w/ other geoscientists in state
outside of State team

Disparity of funding levels vs. quality of work produced

UNIVERSITY OF UTAH
RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
391 CHIPETA WAY, SUITE A
SALT LAKE CITY, UTAH 84108
801-581-5283

March 3, 1979

Dr. Clayton Nichols
DOE-DGE
550 2nd Street
Idaho Falls, ID 83401

Dear Clay:

At our recent State Coupled Core Group meeting in Salt Lake City, the subject of Dave Blackwell and his heat flow/thermal gradient data came up again. I mentioned to the group that I have struck out with Blackwell even though I have maintained a personal friendship with him for quite a few years. There is a very interesting reason why our relationship has cooled. He is plenty bent out of shape that ESL/UURI came into existence and is apparently not interested in communication or cooperation with us. He has taken pot shots at our structure and staff and at our programs. Because he is a stubborn guy, I don't expect him to want to give us any data he hasn't published either for the Idaho map or for any other map.

The Core Group wondered if we could prevail on you to contact Dave once more to ask him to give Mitchell all of his Idaho data for inclusion on the impending Idaho map. Proper credit would, of course, be given. If one more try is not successful I suggest that we notify Don Klick of Blackwell's attitude and then go ahead and publish without his latest data.

Could you let me know what Dave says?

Sincerely,



Phillip M. Wright
Associate Director

PMW:srm

cc: S.H. Ward
G.P. Brophy
D. Foley
D.W. Struhsacker

UNIVERSITY OF UTAH RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
420 CHIPETA WAY, SUITE 120
SALT LAKE CITY, UTAH 84108
TELEPHONE 801-581-5283

M E M O R A N D U M

TO: State Coupled Program Core Group

FROM: Duncan Foley

RE: Map Progress

DATE: June 26, 1979

I have held conversations with many of the state assessment teams in the western United States and with NOAA in the past few days, and have prepared the enclosed table to summarize my impressions of where we stand on the map publication goals.

The change of emphasis from scientific-oriented to public-oriented maps looks like it will allow publication of most state maps by the end of 1979. This is, of course, assuming that no major delays occur.

In general, it seems appropriate to hold a meeting with each state prior to submission of data to NOAA. It may also be appropriate to hold a meeting during the digitizing, to discuss any changes, and to hold another meeting after the digitizing to discuss details of data presentation.

Meetings listed on the chart should, therefore, be considered tentative, as they may change slightly depending on the state of progress. At the present time, it looks as though meetings with the Idaho team (in Boise?), the Utah team (in Salt Lake?), and the Colorado team (in Boulder?) should be slated for July. If a meeting does not take place with the Washington team in July, it should be slated for early August. An August meeting will be needed with New Mexico, where significant questions of data selection and depiction remain.



Duncan Foley

cc: Jerry Katz

MAP PRODUCTION SCHEDULE
STATE COUPLED PROGRAM

<u>STATE</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG.</u>	<u>SEPT.</u>	<u>OCT.</u>	<u>NOV.</u>	<u>DEC.</u>	<u>JAN.</u>	<u>MAP PUBLISHED IN 1979</u>
Ak.	--	No NOAA Involvement		--	Printed				Yes
Az.	Prelim. Map Mar. 78								
Ca.	--	--	--	--	--	--	Printed?		
Co.	Data to NOAA	Mtg.	--	Printed					Yes
Ha.	--	--	--	--	--	--	--	--	No
Id.	Data to NOAA	Mtg.	Printed						Yes
Mt.	--	--	--	--	Data to NOAA	Mtg.	--	Printed?	?
Nv.	--	Printed							Yes
NM	Data to NOAA	--	Mtg.	--	--	Printed			Yes
ND	--	--	--	--	--	--	--	--	No
Or.	--	Printed							Yes
Ut.	--	Mtg.	Data to NOAA	Mtg.	--	Printed			Yes
Wa.	--	Mtg.	Data to NOAA	Mtg.	--	Printed			Yes
Wy.	--	--	--	--	--	Data to NOAA?	Mtg.	Printed?	?

Ks., Nb., Ok., SD, Tx. - No map this year.

26 June 1979

UNIVERSITY OF UTAH RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
420 CHIPETA WAY, SUITE 120
SALT LAKE CITY, UTAH 84108
TELEPHONE 801-581-5283

August 9, 1979

M E M O R A N D U M

TO: State Coupled Program Resource Assessment Teams
FROM: Duncan Foley
RE: GRC Meeting

The Geothermal Resources Council will be meeting in Reno, Nevada, from September 24-27. At this time I would like to know how many state teams are planning to send representatives to GRC so we can arrange a meeting of the teams.

I would appreciate it if you could let me know, either by letter or phone, at the above address, if you or someone from your team plans to be in Reno.

Thank you.



Duncan Foley

DF:ccw

Debbie

UNIVERSITY OF UTAH RESEARCH INSTITUTE



EARTH SCIENCE LABORATORY
420 CHIPETA WAY, SUITE 120
SALT LAKE CITY, UTAH 84108
TELEPHONE 801-581-5283

July 14, 1980

MEMORANDUM

TO: State Coupled Program Core Group
FROM: Robert Blackett and Duncan Foley
SUBJECT: Resource Assessment Program Status - June, 1980

The following summaries of individual state Resource Assessment programs were taken from informal telephone conversations with project participants. The purpose of the summaries is to note significant developments and problem areas that have surfaced during the past month.

Alaska - Anchorage: Ross Schaff is heading another state division for a few months. Wyatt Gilbert is temporarily acting State Geologist for Alaska. Due to increased revenues from the Alaska Pipeline, the Alaska State Legislature has elected to invest more heavily in natural resource development. As a result, they have voted to appropriate \$400K to \$500K for additional studies of the states' geothermal potential.

Alaska - Fairbanks: No Report.

California: Preliminary geology, geophysics and water sampling have been completed in the Calistoga area. The California RA team is currently preparing a project status report for the Calistoga project. A maximum of 6 exploratory test holes (1000' tests) are planned for the Calistoga area.

Colorado: The Colorado Geological Survey is working closely with DOE/ID concerning problems with a leaking geothermal well near Pagosa Springs, Colorado. They are in the process of abandoning the well by cementing to a depth of 300 ft.

Hawaii: The Hawaii State Resource Assessment program is now moving into the 2nd year of phase II studies. This years' goals will be to concentrate the effort to geophysical and geochemical studies of six more promising areas on the islands of Maui and Hawaii. The project will be underway shortly upon finalization of contractual arrangements with DOE.

Idaho: The Idaho RA team expects to have a draft report on the Nampa-Caldwell area by the end of July or mid-August. Geologic studies in the Magic Reservoir area have begun. UURI/ESL geologists are

working with the Idaho Department of Water Resources on the project.

Kansas: No Report.

Montana: The Montana RA team is in the process of obtaining drilling contract approval from the Montana State Purchaser.

Nebraska: Inputting of bottom hole temperatures is continuing. Approximately 60 of 93 counties have been completed in the BHT Survey. Eight of 13 thermal gradient holes have been drilled. Temperature measurements on six of the holes will begin soon.

Nevada: Projects under the new contract are just getting underway as of June 1, 1980. Area specific studies will be conducted at Golconda, Hawthorne and Falon naval air station. Golconda and Hawthorne are areas where drilling (up to 1000 total meters) has been proposed.

North Dakota: A final report has been completed on phase I portion of the statewide thermal gradient study. The public geothermal resource map of North Dakota should be sent to NOAA sometime during mid-July. The actual timing of the geothermal projects may be behind schedule somewhat due to students not being available for work until June.

Oregon: Geological field work in the Powell Buttes area has just recently been completed. A drilling contract for additional work in the Cascades has been sent to prospective bidders. DOGAMI expects to begin drilling by mid July due to increased availability of drilling contractors.

Texas - Austin: A hydrologic consultant has been retained by BEG to run approximately 4 pump tests from wells drilled into Cretaceous aquifers in central Texas. Lineament studies show that several long features oblique to the Balcones fault zone project to Pilot Knob, a volcanic center. Digitization problems have been encountered with the Texas Public Map and will result in delaying the maps' publication.

Texas - TENRAC: TENRAC has drafted a form drilling contract for DOE approval. They expect to have that approval for the Hueco Tanks drilling project during the week of July 7th. The West Texas program is about 1 month behind schedule, but TENRAC expects to meet contract deadlines.

Utah: Water sampling of springs and wells along the northern Wasatch Front and Jordan Valley has started. The samples are being delivered to UURI/ESL for analysis. The Utah RA team expects to have collected approximately 300 samples by the end of summer.

Washington: The Washington State RA team has received verbal approval from DOE to study the thermal features (pyroclastic flows, fumaroles, etc.) associated with recent volcanism at Mt. Saint Helens. An increased number of requests for Geothermal information and presentations since the May 18 eruption has prompted the Washington team to prepare a temporary state geothermal map until the NOAA map is finalized.

Debbie

UNIVERSITY OF UTAH RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
420 CHIPETA WAY, SUITE 120
SALT LAKE CITY, UTAH 84108
TELEPHONE 801-581-5283

July 28, 1980

MEMORANDUM

TO: State Coupled Program Core Group
FROM: Duncan Foley and Robert Blackett
SUBJECT: Meeting with Montana Resource Assessment Team

DATE OF TRIP: 6-3-80

PURPOSE: Discussion of State Coupled and User Coupled Program Interfaces.

ATTENDEES: John Sonderegger, Chuck Wideman; Montana Bureau of Mines and Geology.
Duncan Foley, Robert Blackett; UURI/ESL

GENERAL AND BUSINESS

1. D. Foley presented a discussion of the interface between the State Coupled Program and the User Coupled Confirmation Drilling Program.
2. From discussions with DOE, it has been noted that one possible way to offset pending budget cuts would be to coordinate some of the State Resource Team's work efforts through the Hot Dry Rock Program, where applicable.
3. Some reports by Resource Teams in the past have not addressed the non-technical (public) segment of their audience. A public oriented executive summary could be included with each technical report to describe, in more simplified terms, the findings of the study.
4. Individual contracts will be renewed on a six month schedule beginning with pre-proposal meetings between state teams and UURI/ESL.

TECHNICAL

1. The montana team has arranged a trade out of geophysical data near West Yellowstone, Montana with a private corporation active in the area. The data will aid in determining thickness and character of the volcanic rocks that are present.
2. Montana state legislation currently does not define "hot water" in classifying a resource.


Bob Blackett
Bob Blackett

BB/cw

Debbie

UNIVERSITY OF UTAH RESEARCH INSTITUTE

UURI

EARTH SCIENCE LABORATORY
420 CHIPETA WAY, SUITE 120
SALT LAKE CITY, UTAH 84108
TELEPHONE 801-581-5283

July 28, 1980

MEMORANDUM

TO: State Coupled Program Core Group
FROM: Robert Blackett
SUBJECT: Meeting with Idaho Resource Assessment Team

Date of Meeting: June 20, 1980

Place: Offices of the Idaho Department of Water Resources, Boise, Idaho

Purpose: Discussion of State Coupled Program and User Coupled Confirmation Drilling Program Interfaces

Attendees: John Mitchell, John Anderson, Frank Sherman - Idaho DWR. Roy Mink - DOE - Idaho Operations Office, Idaho-Falls, Idaho. Duncan Foley, Robert Blackett, ESL/UURI

General and Business

1. Duncan Foley gave a presentation of the relationships between the State Coupled Program and the User Coupled Confirmation drilling program. Some important points of the program that were discussed are as follows:
 - a. The proposal preparation time for the first solicitation is very short (60 days to August 15, 1980), but another solicitation will be forthcoming around Jan., 1981.
 - b. Unlike the PON's & PERDA's, if a proposal is rejected for any reason, it can be resubmitted at a later date.
 - c. The involvement of the State Resource Assessment Teams is a "gray area" right now, whereby state resource teams will be involved in the proposal selection process, but will also be able to prepare proposals for state sponsored projects.

Technical

1. John Mitchell pointed out that problems with delays have been encountered in subcontracting with State of Idaho.
2. The inclusion of all data into reports may become a problem when publishing the reports. It was suggested that the data be excluded from the reports, but available on open file.

Action Items

1. A slide and tape presentation is being prepared and will be forwarded to each of the state teams.



Bob Blackett

BB/cw
cc: P.M. Wright

STATE COOP CORE GROUP

Joel Renner
Gruy Federal
2001 Jefferson Davis Hwy.
Suite 701
Arlington, VA 22202

Bob Gray
DOE/DGE, RA 223
12th and Pennsylvania Ave., N.W.
MS 3344
Washington, DC 20461

George Berry
National Oceanographic and
Atmospheric Administration
Code D62/NOAA/EDS
Boulder, CO 80302

Duncan Foley, Mike Wright,
Debra Struhsacker, Bob Blackett
UURI-Earth Science Lab.
391 A Chipeta Way
Salt Lake City, UT 84108

Paul Grim
National Oceanographic and
Atmospheric Administration
Code D62/NOAA/EDS
Boulder, CO 80302

Clayton Nichols
DOE/DGE
550 2nd Street
Idaho Falls, ID 83401

Jim Swanson
USGS
345 Middlefield Rd., MS 84
Menlo Park, CA 94025

Roy Mink
DOE/DGE
550 2nd Street
Idaho Falls, ID 83401

Gerry Brophy
3914 12th St. South
Arlington, VA 22204

Marshall Reed
U.S.G.S.
345 Middlefield Rd., MS 18
Menlo Park, CA 94025

Bill Laughlin
Geological Applications Group G-9
Los Alamos Scientific Lab.
P.O. Box 1663
Los Alamos, NM 87545