Geothermal Data Aggregation: Submission of Information into the National Geothermal Data System

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Organization: SMU

Project Overview 1-2

High quality information supporting geothermal research and development will be submitted to the National Geothermal Data System (NGDS):

- An expanded and updated version of the SMU Heat Flow database that covers the whole onshore US and offshore regions on the Gulf of Mexico.
- The Geothermal Resources Council (GRC) library with over 36K documents and over 1.3M pages on geothermal research.
- Extensive information on Enhanced Geothermal System research including data files related to EGS in Europe and the US Northeast.

Project Overview 2-2

- Current and legacy results of research in the mid-continent and eastern US.
- Detailed new geopressure data, core logs, and well logs from the Texas Bureau of Economic Geology (BEG).
- Data will be compiled into readily usable form and put into the public domain in working data formats and finally into the NGDS format when the data structure is finalized.
- Project is 3 years in length.

Location of Data Sets

Geothermal Data Aggregation (GTDA)

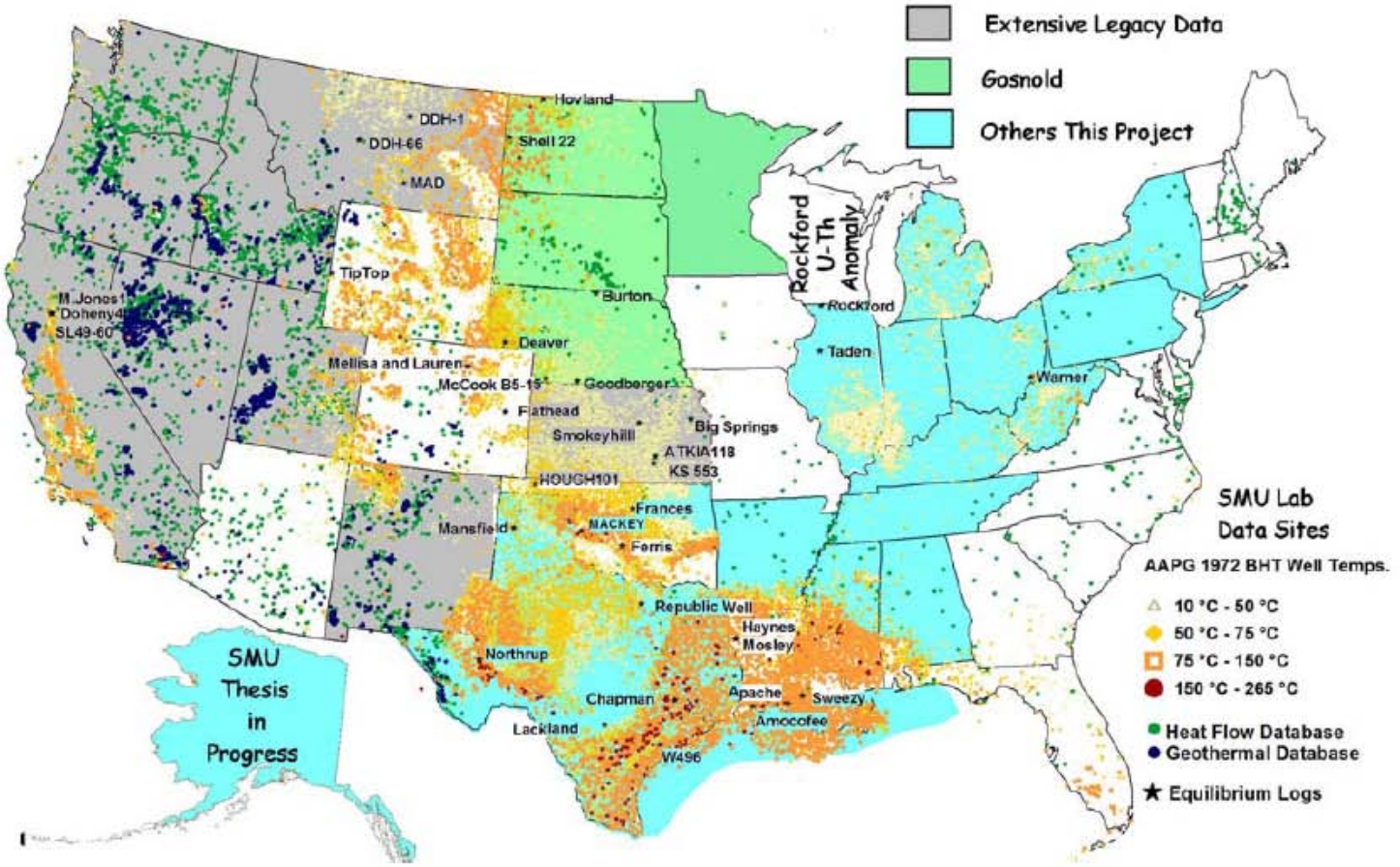
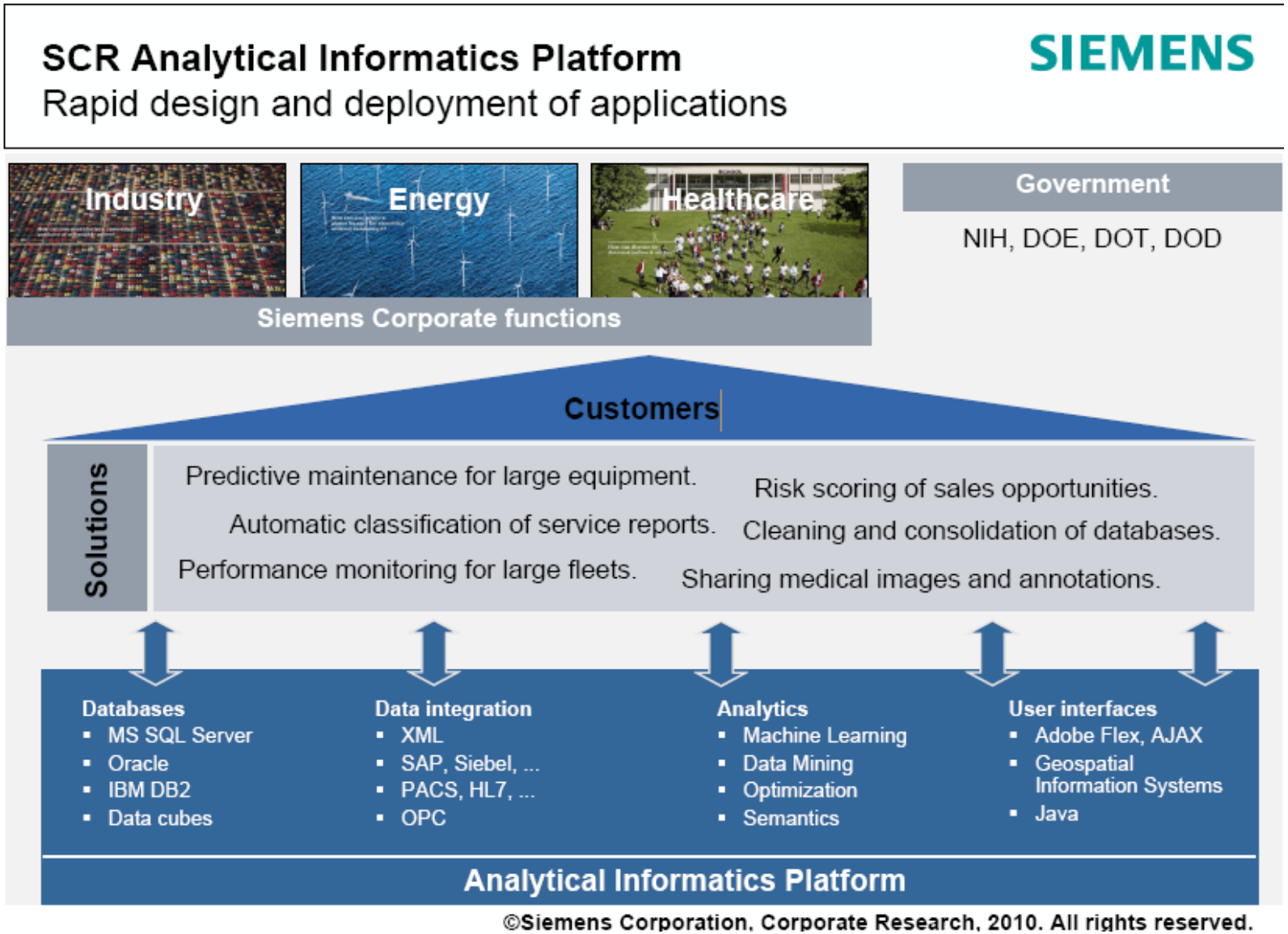


Figure 2: SMU Map of thermal data regions and sources. The lower legend indicates types of thermal data [6] used to generate the Geothermal Map of North America that are part of the SMU data bases.

Siemans Value Added



Overview Slide

- Timeline
  - Project start date, project end date and percent complete:
    - April 1, 2010-March 31, 2013, 2% complete
  - Budget
    - Total project funding for FY10:
      - DOE $2,055,822
  - Barriers: Compilation, integration, dissemination
  - Partners: See Below

Project Partners

Partners

- Southern Methodist University-David Blackwell
- Texas Bureau of Economic Geology-Ian Duncan
- Geothermal Resources Council-Kurt Robinson
- Cornell University-Jefferson Tester
- University of North Dakota-William Gosnold
- Texas Tech University-Seiichii Nagihara
- Kay Data Systems-Martin Kay
- Siemans-Fabian Moerchen

Relevance/Impact of Research

Describe the objective of your project:

•A recent study has identified the need for an easy to use integrated source of information on geothermal resources, the National Geothermal Data System (NGDS). Access to such data will reduce the identification costs and investment risk for developers and help to identify regions where scientific data collection on geothermal resources should be conducted.

Scientific/Technical Approach 1-3

TASKS TO BE PERFORMED

Phase I. Data Retrieval, Collection, Development and Quality Analysis

- Task 1. Data assessment
- Task 2. Definition of data quality standards
- Task 3. Software requirements and development of data processing framework
- Task 4. Development of data repository
- Task 5. Import of data available into data repositories
- Task 6. Quality control and improvement of data
- Task 7. Collection of data with ongoing projects

Tasks Continued 2-3

- Task 8. Development of quality assurance reporting
- Task 9. Requirements NGDS standards and protocols
- Task 10. NGDS submission
- Task 11. Maintenance of computers and software framework

Phase II. Transfer and validation of Information to Data System

- Task 12. Testing of data submission to NGDS with validation
- Task 13. Data submission to NGDS with validation

Tasks Continued 3-3

Phase III. Execution of Data Maintenance Sustainability Plan

- Task 14. Import of additional data into data repositories
- Task 15. Quality assurance and publication of additional data

Progress to Date

Kickoff Meeting was held April 6, 2010

Project Website up and running-a collaborative web-based authoring system is being implemented

All Data Compilation Projects Initiated

Data Type Standards Being Developed & Inventory of Materials and Types Begun

Project Web Site

SIEMENS

CT Wiki | Contact | Help | Tag Cloud | A-Z Tag Index | Search

Home > Geothermal Data Aggregation (GTDA) > Geothermal Data Samples > Attachments

Attached Files

Name	Size	Creator	Creation Date	Comment	
geodata-schema.zip	10 kB	Michael Gall	Apr 29, 2010 17:22		Properties
MartinKay3.png	378 kB	Michael Gall	Apr 22, 2010 19:51	Well Header Log - 3	Properties
MartinKay2.png	427 kB	Michael Gall	Apr 22, 2010 19:51	Well Header Log - 2	Properties
MartinKay.png	448 kB	Michael Gall	Apr 22, 2010 19:50	Well Header Log - 1	Properties
WA_VOLUME_1of3.pdf	3.83 MB	Michael Gall	Apr 21, 2010 17:52	Washington Field Notes	Properties | View
SMU_Washington_HF_Database.xls	283 kB	Michael Gall	Apr 21, 2010 16:48		Properties | Edit in Office | View
Manual_Geothermal.doc	32 kB	Michael Gall	Apr 21, 2010 16:45		Properties | Edit in Office | View

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- Browse space
- Add news
- Recently updated
- My recently updated

Navigate CT Wiki
- Recently updated
- My favorite pages
- My recently updated
- My history

Project Management/Coordination

- For overview projects:
  - Summary of project management plans:
    - Weekly phone conferences
    - Project website for communication, data set uploads
    - Annual Meetings
    - Coordination with other Data Projects ongoing
  - Schedule
    - 3 year project
  - Application of resources and leveraged funds/budget/spend plan:
    - All geoscience groups participating have been selected because of their extensive legacy and ongoing collection of geothermal data sets that will be standardized and become part of the NGDC

Summary Slide

- A grant has been awarded to build the database infrastructure and specify data formats and protocols for submission of data by third parties. With great experience on the NGDS team, the geological side of the data system can be expected to be well represented leveraging on related efforts to build a Geoscience Information Network (GIN) with a national geologic map database.
- This project complements these development efforts by assembling a unique group of geothermal specialists and others with the ability to develop and provide large amounts of geothermally relevant information from existing databases, legacy and undigitized data, and new collection efforts, partially co-funded by other programs and sponsors, and at the same time quickly creating a format and submission infrastructure to compliment planned development of the NGDS.