Final Technical Report submitted as part of the requirements of:

National Geological and Geophysical Data Preservation Program (NGGGDPP)

Award Number: G12AP20149

Award issued to:

Western Michigan University
Michigan Geological Survey
Attn: Daniel Litynski
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Project Title:

Preserving and Using Michigan Cores, Cuttings, and Well Records

Prepared by Principal Investigator:

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Project Start Date: 09/01/2012
Project End Date: 08/31/2013

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Abstract

Several large collections of cores, cuttings and well records recently received by the Michigan Geological Survey were inventoried, all metadata recorded, and entered in the appropriate format at the NGGDPP website, and historic paper data was converted to digital format. These data represent cores, cuttings, mudlogs, and production history several thousands of oil and gas wells drilled throughout the state of Michigan in every prospective formation.

Our staff supervised a large group of students whose labor and attention to detail allowed us to meet or exceed all our goals.

Data from these wells are essential to preserving our geological legacy and to addressing sustainable resource development and environmental issues. Completing this project meets several goals of the National Geological and Geophysical Data Preservation Program and mirrors the State's long-term goals of inventorying all geological collections and converting paper to digital data. The Michigan Geological Survey, now a part of Western Michigan University, will use these data in several research programs; use them in student training; and make them available and accessible to all stakeholders.

All Proposed grant objectives achieved:

Grant Objective 1 – Inventory collections of geological or geophysical data		
Name of Collection	*Brief description of collection contents and estimated number of items*	
Cores	Inventoried recently received cores from oil and gas wells, mineral wells and shallow rotasonic cores.	
Cuttings	Inventoried recently received cuttings from oil, gas and water wells	
Grant Objective 2 – Create metadata for individual items in inventoried data collections		
No work proposed for this objective		
Grant Objective 3 – Create or update digital infrastructure		
Paper →Digital conversion	List the type and amount of paper records you plan to scan/digitize:	
	type	*amount*
	Oil well core analyses (analytical data for each footage sampled; number of samples per well is extremely variable, from 5 to 70)	800 analyses
	Oil well mudlogs	600 mudlogs
	Historical monthly production data from 800 wells, hand-typed	500 pages

Data proposed and actually uploaded

Our original proposed budget of almost $27,000 was substantially reduced to $20,000. Even so, we kept our initial goals and far exceeded those. We are grateful to our entire staff and our students for their commitment to this project.

Comparison of proposed and actual work accomplished:

Reference Files (names and URLs) for Data uploaded for 2012-2013 contract year to https://www.sciencebase.gov/catalog/folder/4f4e4761e4b07f02db47dfcc?community=NGGDPP+-+National+Geological+and+Geophysical+Data+Preservation+Program

NGGDPP Collection ID	*Brief Collection Name*	*Proposed Number of collection inventories or metadata records to be uploaded to the National Digital Catalog*	*Actual Number of collection inventories or metadata records uploaded to the National Digital Catalog*	*Progress Summary*
R1402	Cores	300	1,173	We delivered data for almost 3 times the number of wells for which we proposed to deliver data.
Website for R1402		https://www.sciencebase.gov/catalog/item/51dddff5e4b0f72b44722554		
R1403	Cuttings	11,960	13,440	We delivered in excess of the proposed data.
Website for R1403		https://www.sciencebase.gov/catalog/item/51dde0d3e4b0f72b44722560		
R1404	Core analyses	800	2128	We delivered more than twice the proposed data.
Website for R1403		https://www.sciencebase.gov/catalog/item/51dde0d3e4b0f72b44722560		
R1537	Geological logs	600	4223	We delivered about 7 times the proposed mudlog data.
Website for R1405		https://www.sciencebase.gov/catalog/item/51e01c95e4b0d332bf22f44c		
4USGS	Production	800	754	We delivered 754 wells because there were only 754 distinct wells. Some reported data was in fact for duplicate wells.
Website for 4USGS		https://www.sciencebase.gov/catalog/item/520d2c68e4b081fa6136d4e6		

Thank you

We are grateful for the opportunity to be a part of this national geological data archive. We strongly believe that we must preserve the data records of our geological resources. We simply cannot know what data we preserve today will prove to be invaluable tomorrow. We thank you for your help in funding this work at the Michigan Geological Survey.