

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 9/30-10/3/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: _____ Contractor: Andrew Well Drilling

Geologist: _____ Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 222' to 239' Mud/Air/ churn

Footage Cut 17' Temp: In _____ Out _____

Hole Size _____ Wt _____

Dev. Survey _____ @ _____ Vis _____

Casing _____ Ph _____

Report: 9/30: 222-226' Gray fractured basalts. Brown clay in seams. Had to backfill and redrill.

10/1: 226-230' Gray basalts (hard brown fractures with clay).

10/2: 230-235' Gray basalts-breaking weld on bit.

10/3: 235-239' Gray basalts.

20" hole - no water encountered.

20" casing - 183'

Well History

Interval	Hole Size	Casing	Expenditures	
			Total to date	Projected
<u>0-20'</u>	<u>30"</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>0-107'</u>	<u>24"</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>0-177'</u>	<u>20"</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>0-239'</u>	<u>20"</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Cost/Ft _____
Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 10/4-10/10/83

Location: NW of NW Sec. 2 T 26S R 7W Spud Date: 8/21/83

County, State: Millard, UT Day #: _____

Prog. Depth: 4000' Contractor: Andrew Well Drilling

Geologist: Deymonaz Rig.: Cable tool
Bucyrus-Erie 36-L

Drilled 239' to 295' Mud/Air/ churn

Footage Cut 56' Temp: In _____ Out _____

Hole Size 20" Wt _____

Dev. Survey @ Vis _____

Casing 30" 0-20; 24" 0-106.5'; 16" 0-295' Ph _____

Report: 10/4 239-248' hard gray rock

10/5 248-281' Hard gray rock 248-258, clay and loose rock 258-265, brown sandstone 265-281.

10/6 281-295' Firm brown rock (welded tuff)

10/7 Run 16" casing to 220'

10/8 Set 16" casing to 295'; cement with 8 yds sand mix, begin pulling 20" casing.

10/9 Remove 20" casing, cement with 25 yds cement.

10/10 Rig down, release rig.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
			<u>Total to date 106,000</u>
<u>0-64'</u>	<u>30"</u>	<u>30"</u>	<u>Projected</u>
<u>64-177'</u>	<u>24"</u>	<u>24" (0-106.5)</u>	<u>Cost/Ft</u>
<u>177-295'</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Budgeted</u>
_____	_____	_____	_____
_____	_____	_____	_____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/1/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey _____ @ _____ Vis _____
 Casing _____ Ph _____
 Bits, stabs, etc. & ser. # _____

Lithology _____

Additional Report Rig moved to location at 1:30p, began setting up, built cellar, dig pits.

Well History

Interval	Hole Size	Casing
0- 64	30"	30" (0-20')
64-177	24"	24" (0-106.5')
177-295	20"	16" (0-295')
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/27/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____
 Bits, stabs, etc. & ser. # _____

Lithology _____

Additional Report Setting up rig, install wellhead flange to hang 8 5/8" casing
Run 8 5/8" to 290', packer failed to engage.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Expenditures

Total to date _____
 Projected _____
 Cost/Ft _____
 Budgeted _____

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/3/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295 to 295 Mud/Air/ _____
 Footage Cut 0 Temp: In _____ Out _____
 Hole Size _____ Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____
 Bits, stabs, etc. & ser. # _____

Lithology _____

Additional Report Unable to engage packer, pull casing, modify packer springs,
run casing, packer finally engaged at 4p after several attempts. Installed
wellhead flange and BOP equipment.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>	<u>Total to date _____</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>	<u>Projected _____</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Cost/Ft _____</u>
_____	_____	<u>8 5/8"</u>	<u>Budgeted _____</u>
_____	_____	_____	
_____	_____	_____	

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/4/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 295' to 913' Mud/Air/ foam injection
 Footage Cut 618' Temp: In _____ Out _____
 Hole Size 6 3/4" Wt _____
 Dev. Survey @ Vis _____
 Casing _____ Ph _____

Bits, stabs, etc. & ser. # _____

Lithology Rhyolitic tuffs

Additional Report Complete rigging up BOP & test blind and pipe rams to 200psi for 20 minutes each. Ward Wagstaff from Utah Div. of Water Resources observed test. Nipple up rotating head, finish blewie line installation. RIH with 6 3/4" hammer and drill 295-913 feet, penetration 80-150 ft/hr. First water at 450 ft., 150 gpm at 913 ft. Flood out hammer, POH change to journal hearing rock bit.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>	<u>Total to date _____</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>	<u>Projected _____</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Cost/Ft _____</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8"</u>	<u>Budgeted _____</u>

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/5/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 913' to 1390' Mud/Air/ aeriated
 Footage Cut 477' Temp: In 58°F Out 89°F
 Hole Size 6 1/2" Wt 8.3-9.5
 Dev. Survey @ Vis 31-80
 Casing _____ Ph 6.2

Bits, stabs, etc. & ser. # EA 2436, Smith 6 1/2 journal

Lithology Rhyolitic tuffs with olivine basalts below 1,000'

Additional Report RIH, drill ahead with aeriated mud, hole caving below 1,150',
increase mud weight at 1,174', LC at 1,390', stuck pipe briefly. Condition hole
with heavy mud, POH. Penetration 38'-92'/hr.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>	<u>Total to date _____</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>	<u>Projected _____</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Cost/Ft _____</u>
<u>913-1390'</u>	<u>6 1/2"</u>	<u>8 5/8"</u>	<u>Budgeted _____</u>

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/6/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 1390' to 1448' Mud/Air/ aeriated
 Footage Cut 68' Temp: In 59°F Out 90°F
 Hole Size 6 1/2" Wt 9.3
 Dev. Survey @ Vis 80
 Casing _____ Ph 6.0

Bits, stabs, etc. & ser. # EA 2436, Smith 6 1/2" journal

Lithology Rhyolitic tuffs and basalts (dikes?)

Additional Report RIH to clean hole, no returns, washed and drilled to 1,418,
unable to make connection. Pump heavy mud and condition hole, POH, wait on
cement. Halliburton arrived at 9:30p, set first plug at 1,448' at 11:30p using
20 ft.³ of cement, pull drill pipe back to 1,240 WOC. Penetration 30'/hr.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>	<u>Expenditures</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>	<u>Total to date _____</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>	<u>Projected _____</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>	<u>Cost/Ft _____</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8"</u>	<u>Budgeted _____</u>
<u>913-1,448</u>	<u>6 1/2"</u>	_____	

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/7/83
 Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: _____
 County, State: Millard, UT Day #: _____
 Prog. Depth: 4,000' Contractor: Stewart Bros.
 Geologist: Deymonaz/Huntsman Rig.: Failing 2500

Drilled 1448' to 1585' Mud/Air/ _____
 Footage Cut 97' Temp: In 55°F Out 97°F
 Hole Size 6 1/2" Wt NR
 Dev. Survey @ Vis NR
 Casing _____ Ph NR
 Bits, stabs, etc. & ser. # Smith 6 1/2" journal

Lithology _____

Additional Report WOC, RIH, tag cement at 3 am., drill to 1,450', set second cement plus (20 ft³), WOC. Change rotating head rubber, repairs on rig.

Condition hole, begin drilling ahead at 3:30 a.m. Have returns but high fluid loss. Penetration 20-84'/hr.

Well History

<u>Interval</u>	<u>Hole Size</u>	<u>Casing</u>
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-1585</u>	<u>6 1/2"</u>	_____

Expenditures

Total to date 75,709
Projected _____
Cost/Ft 58.69
Budgeted 207,236.

DAILY DRILLING REPORT

Project - Hole: Thermex 22-2 Date: 11/9/83

Location: NW 1/4 of NW 1/4 Sec. 2 T 26S R 7W Spud Date: 11-4-83

County, State: Millard, UT Day #: 6

Prog. Depth: 4,000' Contractor: Stewart Bros.

Geologist: Deymonaz/Huntsman Rig.: Falling 2500

Drilled 2214' to 2690' Mud/Air/ aeriated

Footage Cut 476' Temp: In 80°F Out 102°F

Hole Size 6 1/2" Wt 9.0

Dev. Survey @ Vis 33

Casing _____ Ph 9.0

Bits, stabs, etc. & ser. # EC5182 Smith F-3 6 1/2" journal (in @ 2560')

Lithology pink rhyolite tuff

Additional Report POH, change bit at 1560, RIH drilling ahead, penetration

15-60'/hr.

Well History

Interval	Hole Size	Casing
<u>0- 64</u>	<u>30"</u>	<u>30" (0-20')</u>
<u>64-177</u>	<u>24"</u>	<u>24" (0-106.5')</u>
<u>177-295</u>	<u>20"</u>	<u>16" (0-295')</u>
<u>295-913</u>	<u>6 3/4"</u>	<u>8 5/8" (0-275')</u>
<u>913-2214</u>	<u>6 1/2"</u>	_____

Today: 14,516.

Expenditures

Total to date 101,715.
 Projected _____
 Cost/Ft 42.47
 Budgeted 207,236.