

STEAM RESERVE CORPORATION
Weekly Drilling Summary

Period: 8 a.m. 6/11/84 to 8 a.m. 6/18/84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: _____

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing	Interval	Hole Size	Casing
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Hole Size: _____ From _____ To _____

Bits: # _____ from _____ to _____ # _____ from _____ to _____ # _____ from _____ to _____

Footage Cut: _____ Daily Average _____

Circulating Medium: _____

Temperature: (°F)	In	Out	Depth	Deviation	Depth
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Bit location relative to Kelly Bushing: _____ @ _____

Formation: _____

Remarks: Ran temp log after unsuccessful flow attempt - 368°F @ 8100' - pumped cold water down well to back flush obstructions, injection rate rose to 27.3 bbls/min @ 950 psi, ran temp., collar locator and casing evaluation logs, pumped more cold water, perforated four 1/2" holes per foot 8129' to 7692', assisted flow with air injected @ 1,000' 10 hours, cut air, well self flowed 24 hrs, flow line temp rose

265° to 273°, shut in well, nipple down BOPE, nipple up wellhead, rig blooie line, air inject 7 mins to initiate self flow, rig down air and tubing equipment and release, after 24 hrs 275°F and 47 psi through 6" James tube, judge well constriction eliminated, will release rig and flow well continuously until effects of 5,000 bbls cold water eliminated.

STEAM RESERVE CORPORATION
Weekly Drilling Summary

Period: 8 a.m. 06 / 04 / 84 to 8 a.m. 06 / 11 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: _____

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing: Interval Hole Size Casing

Interval	Hole Size	Casing
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Hole Size: _____ From _____ To _____

Bits: # _____ from _____ to _____ # _____ from _____ to _____ # _____ from _____ to _____

Footage Cut: _____ Daily Average _____

Circulating Medium: _____

Temperature: (°F)	In	Out	Depth	Deviation	Depth
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Bit location relative to Kelly Bushing: _____ @ _____

Formation: _____

Remarks: Cleaned out fines with mud 7500' to 8117', lost circulation at 8130', ran 7" liner to 8140', bottom 150' slotted, blew well with nitrogen 1 day, couldn't sustain flow, ran temp log, 365°F@8100', attempted to blow well one more day, insufficient fluid, deduced liner plugged inside and out 8115' to 8140', examining remedies.

STEAM RESERVE CORPORATION
Weekly Drilling Summary

Period: 8 a.m. 05 / 28 / 84 to 8 a.m. 06 / 04 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: _____

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing:	Interval	Hole Size	Casing
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Hole Size: _____ From _____ To _____

Bits: # _____ from _____ to _____ # _____ from _____ to _____ # _____ from _____ to _____

Footage Cut: _____ Daily Average _____

Circulating Medium: _____

Temperature: (°F)	In	Out	Depth	Deviation	Depth
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Bit location relative to Kelly Bushing: _____ @ _____

Formation: _____

Remarks: Drilled out cement to float shoe - ran cement evaluation log - competent cement reported below 3950' - poor cement from 3950' to 1050' - cement in lap good - pressure test good, drilled out float shoe and all remaining cement back to sand plug, displaced mud with water, drilled to 8157', full loss of returns, rigged for flow test with nitrogen, HOWSCO delayed 30 hours, introduced nitrogen @ 3000', five hours, well continued to self flow @ 6am 6/1/84 est. 270K lbs/hr, elected to introduce nitrogen

@ 8150', encountered bridge @ 7887' confirming suspicion of unrepresentative flow, attempted to clean out well to 8150' with water without success, plan to mix mud to clean out well, then set 7" slotted liner into L.C. zone followed by flow test.

**STEAM RESERVE CORPORATION
Weekly Drilling Summary**

Period: 8 a.m. 05 / 21 / 84 to 8 a.m. 05 / 28 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: 8149

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing	Interval	Hole Size	Casing
	<u>0-14</u>	<u>36"</u>	<u>30"</u>
	<u>0-278</u>	<u>26"</u>	<u>20"</u>
	<u>0-1051</u>	<u>17 1/2</u>	<u>13 3/8</u>
	<u>802-6803</u>	<u>12 1/4</u>	<u>9 5/8</u>

Hole Size: _____ From _____ To _____

Bits: # _____ from _____ to _____ # _____ from _____ to _____ # _____ from _____ to _____

Footage Cut: _____ Daily Average _____

Circulating Medium: _____

Temperature: (°F)	In	Out	Depth	Deviation	Depth
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Bit location relative to Kelly Bushing: _____ @ _____

Formation: _____

Remarks: Set cement and drilled with 12 1/4" bit to 7700 - Logged hole (dual induction - gamma, neutron density, caliper and S.P.) - Wait on casing - Run 9 5/8" casing to 6803. Cement casing and waiting on cement - Run in hole and test cement - Lap at hanger which was leaking - Recemented lap with squeeze tool and wait on cement.

**STEAM RESERVE CORPORATION
Weekly Drilling Summary**

Period: 8 a.m. 05 / 07 / 84 to 8 a.m. 05 / 14 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: 6625'

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing	Interval	Hole Size	Casing
	<u>0-14'</u>	<u>36</u>	<u>30</u>
	<u>0-278'</u>	<u>26</u>	<u>20</u>
	<u>0-1051'</u>	<u>17 1/2</u>	<u>13 3/8</u>

Hole Size: 12 1/4 From 1061' To 6625'

Bits: #11 from 6150 to 6625 # 10 from 5305 to 6150 # 9 from 4424 to 5305

Footage Cut: 1320 Daily Average 189

Circulating Medium: Mud @ 9.3 lbs/gal.

Temperature: (°F)	In	Out	Depth	Deviation	Depth
	<u>not drilling</u>		<u>5305</u>	<u>4 1/2°</u>	<u>5287</u>
	<u>123</u>	<u>143</u>	<u>5544</u>	<u>4 3/4</u>	<u>5485</u>
	<u>124</u>	<u>143</u>	<u>5875</u>	<u>4 1/2</u>	<u>5701</u>
mud cooler dwn	<u>131</u>	<u>155</u>	<u>6150</u>	<u>4 1/2</u>	<u>5917</u>
	<u>logging well</u>				
	<u>137</u>	<u>160</u>	<u>6290</u>		
	<u>128</u>	<u>151</u>	<u>6625</u>	<u>1 3/4</u>	<u>6387</u>

Bit location relative to Kelly Bushing: 80'S 287'W @ 6625 headed NE

Formation: Dominantly metamorphosed sandstones and siltstones.

Remarks: Drilling breaks: 5' @ 5417, lost 20 bbls; 18' @ 5820', lost 200 bbls,
logging @ 6150: DI, NDL, calipre, SP, gamma, continuous temp., time temp
@ 6120', Deduced True Formation Temp @ 6120' = 400°F, flow test eqpt. ordered,
drilling ahead.

STEAM RESERVE CORPORATION
Weekly Drilling Summary

Period: 8 a.m. 4 / 30 / 84 to 8 a.m. 5 / 7 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: 5305'

Contractor: SRC Rig: Willbros #10

Geologist: Deymonaz Drilling Supervisor Otis Day

Casing	Interval	Hole Size	Casing
	<u>0-14'</u>	<u>36</u>	<u>30</u>
	<u>0-278'</u>	<u>26</u>	<u>20</u>
	<u>0-1051'</u>	<u>17 1/2</u>	<u>13 3/8</u>

Hole Size: 12 1/4 From 1061 To 5305

Bits: # 9 from 4424 to 5305 # 8 from 4349 to 4424 # 7 from 3912 to 4349

Footage Cut: 1393' Daily Average 199'

Circulating Medium: Mud @ 9.5 lbs/gal.

Temperature: (°F)	In	Out	Depth	Deviation	Depth
	<u>155</u>	<u>169</u>	<u>4175</u>	<u>4 1/4</u>	<u>4056</u>
	<u>165</u>	<u>180</u>	<u>4349</u>	<u>5</u>	<u>4296</u>
	<u>163</u>	<u>179</u>	<u>4408</u>		
	<u>166</u>	<u>181</u>	<u>4531</u>	<u>5 1/2</u>	<u>4451</u>
mud cooler	<u>113</u>	<u>140</u>	<u>4760</u>	<u>5</u>	<u>4668</u>
	<u>112</u>	<u>139</u>	<u>5025</u>	<u>4 1/4</u>	<u>4914</u>
	<u>112</u>	<u>141</u>	<u>5305</u>	<u>4</u>	<u>5162</u>

Bit location relative to Kelly Bushing: 35'S, 264'W @ 5162'

Formation: Dominantly sandstone and siltstone; deduced as paleozoic section since 3900'

Remarks: Flow line temperature muted by mud cooler after 4500' - ran time-temp survey @ 4330' - data erratic - inconclusive analysis - judge true formation temperature over 400°F @ 5305' - negligible lost circulation - evidence of small fluid entry at 4300' - drilling rate since 4800 about 11'/hr.

STEAM RESERVE CORPORATION
Weekly Drilling Summary

Period: 8 a.m. 4 / 23 / 84 to 8 a.m. 4 / 30 / 84

Well: Fish Lake 88-11 Spud Date 4/11/84

Location: SE of SE Sec. 11 T 1S R 35E

County: Esmeralda State: Nevada

Projected Depth: 6,000' Depth: 3912'

Contractor: SRC Rig: Willbros #10

Geologist: J. Deymonaz Drilling Supervisor Otis Day

Casing	Interval	Hole Size	Casing
	<u>0-14'</u>	<u>36"</u>	<u>30"</u>
	<u>0-278'</u>	<u>26"</u>	<u>20"</u>
	<u>0-1051'</u>	<u>17 1/2"</u>	<u>13 3/8"</u>

Hole Size: 12 1/4" From 1061' To 3912'

Bits: # 6 from 3060 to 3912 # 5 from 2521 to 3060 # 4 from 1882 to 2521

Footage Cut: 2030' Daily Average 290'

Circulating Medium: Mud, 9.1 to 9.4 lbs/gal.

Temperature: (°F)	In	Out	Depth	Deviation	Depth
	<u>144</u>	<u>153</u>	<u>2150'</u>	<u>3 3/4</u>	<u>2103'</u>
	<u>140</u>	<u>150</u>	<u>2521</u>	<u>3 3/4</u>	<u>2366</u>
	<u>143</u>	<u>152</u>	<u>2793</u>	<u>4</u>	<u>2627</u>
	<u>128</u>	<u>150</u>	<u>3060</u>	<u>3 3/4</u>	<u>2969</u>
	<u>156</u>	<u>165</u>	<u>3315</u>	<u>3 1/2</u>	<u>3183</u>
	<u>135</u>	<u>169</u>	<u>3658</u>	<u>4</u>	<u>3491</u>
	<u>164</u>	<u>176</u>	<u>3912</u>	<u>4</u>	<u>3894</u>

Bit location relative to Kelly Bushing: 50'N, 150'W @ 3894'

Formation: Tuffs, tuff breccias, volcanic sandstones and silts, mud loggers report serpentinite 3860-3890'

Remarks: .Temperature progression encouraging - true formation temperature probably over 350°@3912' .Negligible lost circulation .Hole deviation acceptable .Drilling @ 10 to 20 ft/hour.