Log# 31494
4-64 Clovers Area

Stewart Brothers
DRILLING CO.

March 30, 1989

State Engineer
Division of Water Resources
Capitol Complex
201 S. Fall St.
Carson City, NV 89710

Re: Abandonment of Borehole

To Whom It May Concern:

On January 30, 1989, Stewart Brothers Drilling Co. began drilling a hole under Intent No. 11962 and Permit No. 51886. This hole was located in SW 1/4, SW 1/4, Sec.. 4, T 33N, R 43 E.

On February 18, 1989, while drilling a 12.25" hole at a depth of 550 feet, a portion of the rotary table was accidently dropped into the borehole. Subsequent fishing operations were unsuccessful and the well was abandoned. The abandonment fluid was mud gel that exceeded specifications for abandonment. A copy of the mud engineer's report is attached to this letter.

The top 50 feet of the well was abandoned with neat cement. The drilling rig was moved 40 feet to the west and the well was successfully completed at that location.

Should you have any questions about this matter, please call me.

Sincerely,

David H. Stewart
Nevada License 1447

DHS:jm

Enclosure

ROTARY AND AUGER DRILLING • SINCE 1945 • (505) 287-2986
POST OFFICE BOX 2067 • 306 AIRPORT ROAD • MILAN, NEW MEXICO 87021

KNOWLEDGE EXPERIENCE national water well association CERTIFIED ABILITY C.W.D./P.I.

SQUARE ONE
FLUIDS ENGINEERING & SUPPLY

[redacted]
Fort Collins, Colorado 80524
(303) [redacted]
303-225-9945
303-221-0859

31494

DRILLING MUD REPORT

Report No. 6

Date 2-10 1989 Depth 550

API WELL NO.	STATE	COUNTY	WELL	S-T

In Cooperation with: WESTERN MUD SERVICES

OPERATOR	CONTRACTOR	RIG NO.
MARIGOLD	STEWART BROS.	4-5
ADDRESS: VARMY	ADDRESS: RIG	SPUD DATE: 1-30-89
REPORT FOR MR.	REPORT FOR MR. PHILLIP STEWART	Section, Township, Range

WELL NAME AND NUMBER	FIELD OR BLOCK NO.	COUNTY, PARISH, OR OFFSHORE AREA	STATE OR PROVINCE
WATER WELL #9 (1st Hole)		HUMBOLDT	NEV

OPERATION	CASING	MUD VOLUME (BBL)	CIRCULATION DATA
PRESENT ACTIVITY: TRIP W/ MAGNET	SURFACE: 20 IN. at 92 FT	HOLE 76 / PITS 700	PUMP SIZE: 6 x 10 / 7 x 14 IN.
BIT SIZE (in.): 12 1/4 NO. (2)	INTERMEDIATE: IN. at FT.	TOTAL CIRCULATING VOLUME: 782	PUMP MAKE: ~~660~~ MODEL
DRILL PIPE SIZE: 3 1/2 TYPE: XH	PRODUCTION OR LINER: IN. at FT.	IN STORAGE	BBL-STROKE: 1060 / 1787 STROKE-MIN.: 60
DRILL COLLAR SIZE: 8 & 6 1/4 LENGTH: (200)	MUD TYPE: GEL / PAC		BBL.-MIN.: (8.4) 338

ANNULAR VEL. (Ft.-Min.): OPPOSITE DP (60); OPPOSITE COLLAR (75)
CIRCULATING PRESSURE PSI (400)
BOTTOMS UP (Min.) 9+
SYSTEM TOTAL (Min.) 93+

Sample from ☒ Flowline ☐ Pit
Flowline Temperature °F

MUD PROPERTIES			
Time Sample Taken	11 AM		
Depth (ft.)	550		
Weight ☐ (ppg) ☐ (lb./cu. ft.)	8.7		
Mud Gradient (psi/ft.)			
Funnel Viscosity (sec./qt.) API at ____ °F	59		
Plastic Viscosity cp at ____ °F	20		
Yield Point (lb./100 sq. ft.)	23		
Gel Strength (lb./100 sq. ft.) 10 sec.-10 min	12/24	/	/
pH ☐ Strip ☐ Meter	9.0		
Filtrate API (ml./30 min.)	12.5		
API HP-HT Filtrate (ml./30 min.) ____ °F	—		
Cake Thickness 32nd in. API☐ HP-HT ☐	1+		
Alkalinity, Mud (Pm)	—		
Alkalinity, Filtrate (Pf/Mf)	.4/1.6		
Salt ☐ ppm ☐ ppg	—		
Chloride ☒ ppm ☐ ppg	400		
Calcium ☒ ppm ☐ Gyp (ppb)	40		
Sand Content (% by Vol.)	1%		
Solids Content (% by Vol.)	2.7		
Oil Content (% by Vol.)	—		
Water Content (% by Vol.)	97.3		
Methylene Blue Capacity (me./ml. mud)			
Average Specific Gravity Solids			
LCM	7%		

EQUIPMENT

	SIZE	HRS.-TOUR				SIZE	HRS.-TOUR		
Centrifuge					Desilter				
Degasser					Shaker				
Desander					Other				

Daily Cost | Cumulative Cost

MUD PROPERTIES SPECIFICATIONS
WEIGHT 9.2 VISCOSITY 60-65 FILTRATE 12-14
By Authority: ☐ Operator's Written ☐ Operator's Representative ☐ Drilling Contractor ☐ Other

RECOMMENDATIONS
(*) GEL - AS NEEDED FOR VIS - RAISE SLOWLY IF HOLE NOT CLEANING
(*) PAC - 1 VIS CUP PER 2 st gal SLOWLY
(*) SOT - ONLY IF VIS CLIMBS TOO MUCH FOR WATER CONTROL
(*) SODA ASH - 1/2 SK DAYS FOR CIRCULATING
(*) AS NEEDED TO CONTROL VIS & WT

REMARKS (*) SPENT NIGHT GRINDING ON JUNK - COND, IN W/ MAGNET TO RETRIEVE
(*) NO PROBLEMS GETTING IN & OUT OF HOLE
KEEP HOLE FULL ON TRIPS
ABANDONED HOLE DUE TO JUNK

PRODUCT	THE FLUID LEFT IN THIS HOLE WHEN
COST	ABANDONED 2/10 HAD THE PROPERTIES
STARTING INVENTORY	RECORDED ON THIS REPORT —
RECEIVED	X THESE PROPERTIES EXCEED THE REQUIRED
USED LAST 24 HOURS	PROPERTIES FOR API ABANDONMENT FLUID SPECS.
CLOSING INVENTORY	

Representative STEVE CALDERA	Home Address ELKO	Telephone 753-7284
	Warehouse Location ELKO	Telephone 738-0160
	MOBILE - 738-8481	# 0191

In consideration of the furnishing of this report and oral suggestions, it is agreed that no recommendations made hereon shall be construed as authorizing the infringement of any valid patent, and it is agreed that **SQUARE ONE VENTURES, INC.** shall not be liable for any damages resulting from the furnishing of this and oral suggestions and is to be held harmless.