

Confidential

YUKON WILDCAT

Bell River

AMERADA ET AL CROWN "YT-A" No. 1

Approximate location: 67° 19' 45" N.
136° 53' 29" W.



DAILY PROGRESS REPORT

Dec. 11, 1959

Mayo staging area.
Weather - 40 degs. below, snowing.
Received 363 tons of tubular and drilling mud materials.
Road construction started crossing Peel River.

Dec. 12, 1959
to Jan. 9, 1960

Mayo staging area.
Total equipment and supplies received to date 1,484 tons.

Jan. 10, 1960

Mayo staging area.
Weather 8 degs. below, cloudy.
First shipment of camp buildings left Whitehorse for Bell River location YT-A No. 1

Jan. 11, 1960

Road construction crews reached YT-A No. 1 location.

Jan. 12, 1960

First trucks loaded with three bunk houses arrived at wellsite.

Jan. 13, 1960

Total tonnage of equipment at staging area 1,507 tons. One utility cabin and one bunk house on location.

Jan. 14, 1960

Loaded trucks at staging area for wellsite.
Diner cabin loaded with groceries, kitchen cabin loaded with groceries.

Jan. 15, 1960

Loaded out cabins and supplies for wellsite.

Jan. 16, 1960

Convoy of nine trucks started for wellsite. Four camp men left Whitehorse for wellsite. Used two Cessnas and one Beaver. Arrived at camp at 2:00 p.m.

Jan. 17, 1960

Started to set up camp at wellsite.

Jan. 18, 1960

Setting up camp at wellsite.

Jan. 19, 1960

Setting up camp at wellsite. Temp. -15 Wind gusting to 70 M.P.H.

- Jan. 20, 1960 Camp in operation. Cabins arranged and heaters fired up. One Parker crew and tool pusher left Edmonton for location. Arrived at Whitehorse in late p.m.
- Jan. 21, 1960 Crew left Whitehorse for Mayo. Arrived Mayo at 9:30 a.m. Left crew in Mayo and tool pusher and derrickman flew in Beaver to location. Arrived at 12:45 p.m. Started light plant and set up radio. Trucks spent 36 hours in snowdrift 35 miles from location.
- Jan. 22, 1960 Beaver aircraft with crew forced down 8 miles from location due to poor visibility. Sent cat out to bring in luggage. Aircraft took off and landed at location. Unloaded convoy of 9 trucks that left staging area January 16, 1960. Drill truck arrived.
- Jan. 23, 1960 Cleared new camp site closer to well. Drilled test hole at location with shot hole drill to 40' - no solid rock. Prepared to heat up air compressor. Unloaded trucks. Temp. 6 degs. below, snowing, light wind.
- Jan. 24, 1960 Heated air compressor motor and started up. Unloaded trucks from Mayo. Boiler house and boiler arrived.
- Jan. 25, 1960 Moved air compressor to wellsite and erected prefab building over unit. Unloaded trucks from Mayo. Temp. 43 degs. below zero. Foggy after 10:00 a.m. Two trucks loaded with pilings arrived from staging area. Four days making trip.
- Jan. 26, 1960 Temp. 28 degs. below zero. Four trucks arrived from staging area. Started drilling holes for piling.
- Jan. 27, 1960 Temp. 32 degs. below zero. Clear - daylight 8:25 a.m. to 4:45 p.m. Sun over mountain approx. 2 hours. Moved supplies from old camp site to new site. Drilling piling holes with air.
- Jan. 28, 1960 Temp. 55 degs. below zero, 35 M.P.H. wind. Unloaded two trucks from staging area. Crews leveling bunk houses and helping carpenters. No piling holes drilled due to cold weather. Trucks from staging area traveled three days. Road improving with use. Running all equipment 24 hours a day. Beaver brought in radio man to set up radio.

Jan. 29, 1960

Temp. 52 degs. below zero. Overcast and ground fog.
Drilled 12 piling holes.
Nine trucks arrived from staging area.
Beaver weathered in at location.

Jan. 30, 1960

Temp. 32 degs. below zero. Snow flurries.
Unloaded one truck from staging area.
Drilled holes for radio antenna.
Set up rig and drilled 7 piling holes for substructure.

Jan. 31, 1960

Temp. 24 degs. below zero. Snow flurries.
Drilled piling holes for substructure.
Completed base for two 500 gal. tanks.
National tank men arrived.

Feb. 1, 1960

Temp. 28 degs. below zero. Average temp. 20 degs. below zero. Overcast.
Finished drilling piling holes for substructure, and started mud pump piling holes. Started to erect 500 barrel tanks. Three trucks arrived from staging area, 47 hours driving time. Carpenter building storage house. Radio in operation.

Feb. 2, 1960

Temp. 22 degs. below zero. Snowing visibility zero. Drilling piling holes with 12 1/4" bit and two compressors, Electrician wiring camp. Built shelter around tank base and set up heater. Beaver at Chance camp waiting on weather, with surveyor and carpenter.

Feb. 3, 1960

Temp. 14 degs, clear in a.m. Snow in p.m.
Drilling piling holes for rig base.
Five trucks arrived at location. Had trouble at Hart River. Carpenters building storage house.

Feb. 4, 1960

Temp. 22 degs., below zero. Average 20 degs. below zero. Clear.
Drilling piling holes for rig base. Total of 85 holes. Surveyed and levelled pilings with transit. Started cutting off pilings and laying stringers. Beaver flew in with two more Parker crew men. One cat digging tundra for sub base. Four trucks arrived from staging area.

Feb. 5, 1960

Temp. 30 degs. below zero. Clear. Winds in p.m.
Crews working on substructure base.
Five trucks arrived from staging area. Had trouble at Hart River, running over.
Surveyor finished levelling piling.

Feb. 6, 1960

Temp. 33 degs. below zero. Clear - Average temp. 30 degs. below zero.
Drilled piling holes for pipe racks.
Completed running stringers on rig base.
Started filling up around pilings with tundra for insulation.
Completed erection of one 500 barrel tank.
Built base for second 500 barrel tank.
Beaver flew in four more Parker crew men.
One cat hauling tundra for insulation.

Feb. 7, 1960

Temp. 8 degs. above, winds 25 MPH to 40 MPH.
Insulating rig base with tundra.
Tank men working on second 500 barrel tank.
Carpenters working on store house.
Electrician and surveyor finished work and left on Beaver. Drill truck waiting on clutch parts.

Feb. 8, 1960

Temp. 8 degs. above, clear.
Cat hauling insulation for rig base.
Tank crew erecting 500 barrel tank.
Drill truck waiting for parts.
Unpacking boxes.

Feb. 9, 1960

Temp. 20 degs. below zero, clear, snow started 10:00 P.M.
Insulating rig base with tundra.
Assembling derrick.
Started laying matting boards over rig base.
Four trucks arrived from staging area.

Feb. 10, 1960

Temp. 10 degs. below zero. Average temp. 10 degs. below, cloudy.
Erecting derrick, laying matting boards.
Hauling tundra to insulate rig base.
Built pipe racks for casing.
Three trucks arrived from staging area, 5 1/2 days travel time. Drill truck down - waiting for clutch parts.

Feb. 11, 1960

Temp. 27 degs. below zero. Average temp. 10 degs. below zero.
Laying matting boards on base. One crew cutting pilings 5 miles from location. Cat stuck in creek bottom while going after pilings.
One truck rigging up catheads on drawworks.

Feb. 12, 1960

Temp. 34 degs. below zero. Average temp. 15 degs.
Laying matting boards. Spotted substructure on base and started to assemble. Drill truck drilling piling holes. Three men arrived by plane. Four trucks arrived from staging area.

Feb. 13, 1960

Temp. 24 degs. below zero. Average temp. 15 degs. below zero, clear. Snow flurries in p.m.
Rigged up cables, ladders and wiring on derrick.
Rigged up substructure. Dragged cat out of creek with truck and one cat. Carpenters working on buildings.

Feb. 14, 1960

Temp. 30 degs. below zero. Average temp. 15 degs. below zero. Clear.
Building bases for fuel tanks and light plant.
Set up boiler. Installed drawworks, motors and compound on substructure. General rigging up.

Feb. 15, 1960

Temp. 30 degs. below zero. Average temp. 15 degs. below zero. Clear.
Building pump bases. Pinned derrick. Unload trucks.
Hauled moss for water tank and mud house base.
General rigging up.

Feb. 16, 1960

Temp. 10 degs. below zero. Average temp. 15 degs. below zero. Clear in a.m. Snow in p.m.
Strung blocks. Rigging up boiler and lines to fuel tank. General rigging up.

Feb. 17, 1960

Temp. 28 degs. below zero. Average temp. 15 degs. below zero. Clear.
Rigging up water and fuel lines.
General rigging up.

Feb. 18, 1960

Temp. 28 degs. below zero. Average temp. 15 degs. below zero. Clear with light fog in a.m.
Rigging up steam lines. Heated up and started #1 motor. Prepared to raise derrick. Started to dig cellar.

Feb. 19, 1960

Temp. 30 degs. below zero. Average 20 degs. below zero. Overcast in a.m. Clear in p.m.
Raised derrick. Prepared to set in catwalk.
General rigging up.

Feb. 20, 1960

Temp. 42 degs. below zero. Average 25 degs. below zero. Overcast in a.m. Clear in p.m.
General rigging up.

Feb. 21, 1960

Temp. 48 degs. below zero. Average 28 degs. below zero. Clear.
General rigging up.

Feb. 22, 1960

Temp. 23 degs. below zero. Average 10 degs. below zero. Cloudy in a.m. Snow in p.m.
General rigging up.

Feb. 23, 1960

Temp. 9 degs. below zero. Average 4 degs. above.
Install prefabs over drawworks and pump.
General rigging up.

Feb. 24, 1960

Temp. 16 degs. below zero.
Winterizing rig. Rigging up pumps and drawworks.
General rigging up. Carpenters building mud house.

Feb. 25, 1960

Temp. 16 degs. below zero. Average temp. 0 degs.
General rigging up. Dug conductor pipe hole.
Rigging up to drill rat hole.

Feb. 26, 1960

Temp. 28 degs. below zero. Average temp. 10 degs.
Rigged up mud tanks and mud lines. Laid steam line
to cementing unit. General rigging up.

Feb. 27, 1960

Temp. 10 degs. above zero. Average temp. 4 degs. above.
Dug cellar with jack hammer 5' deep. Dug conductor
hole 5' below cellar floor, 45" in diameter. Cribbed
cellar with 3" x 10" and lined up plywood. Built
conductor pipe out of 3" x 10" lumber. Cemented in
conductor with 120 sacks cement treated with 5% CaCl₂.
Rigged up steam coil in cellar to heat cement.
Started working crews two 12 hour shifts.

Feb. 28, 1960

Temp. 12 degs. above zero. Average temp. 0 degs.
Finished cementing cellar with 120 sacks cement.
Rigged up pump suction to cellar. Installed 7 1/4"
heads and liners in #1 and #2 pumps. Rigged up cellar
jet. Picked up kelly and one drill collar to drill
rat hole.
Started to drill rat hole with chain tongs. Unable
to do so. Rigged up rotary table and finished drilling
rat hole with air.

Feb. 29, 1960

Set rotary table over hole and rigged up to spud in.

- Feb. 29 (Cont'd.) Spudded in at 10:00 a.m.
Drilled 12 1/4" hole from surface to 129'
Mixed mud and lost circulation material. Hole taking mud.
- Mar. 1, 1960 Drilled 12 1/4" hole from 129' to 145' and pulled out. Ran 24" bit and reamed 12 1/4" hole to 24" from surface to 145' and drilled 24" hole to 155'
Pulled out and tried to run 20" conductor pipe. Conductor pipe failed to go to bottom. Pulled out and made trip with 24" bit to clean hole.
- Mar. 2, 1960 Conditioned mud. Pulled out and ran conductor pipe. 20" conductor pipe cemented at 154'
Cemented conductor with 160 sacks cement treated with 2% CaCl₂. Pumped plug to 110' Riggged up and circulated warm fluid inside 20" pipe.
- Mar. 3, 1960 W.O.C. 24 hrs.
Welded 20" flange to conductor pipe. installed a 12" Ser. 900 Double Shaffer Gate and Hydril B.O.P.
- Mar. 4, 1960 Finished installing B.O.P. equipment. Tested B.O.P. and casing to 200# O.K. Ran in hole with 8 5/8" bit. Tested B.O.P. and conductor 200# OK. Drilled plug and cement. Drilled 8 5/8" hole from 155' to 170' Hole taking mud in gravel bed.
- Mar. 5, 1960 Drilled 8 5/8" hole from 170' to 200' Reamed tight hole and mixed mud. Conductor washed out. Riggged up collar jet.
- Mar. 6, 1960 Ran 27' of 2" pipe outside of 20" conductor pipe. Recemented with 29 sacks cement treated with 2% CaCl₂. Heated inside of conductor with steam hose.
- Mar. 7, 1960 W.O.C. Cleaned up rig. Mixed mud. Winterized substructure.
- Mar. 8, 1960 Ran in hole with 8 5/8" bit. Reamed gravel bed from 170' to 200' Hole taking mud. Pulled out and ran in with 12 1/4" bit. Mixed mud while circulating. Mud broke out in sump. Added sawdust to mud.
- Mar. 9, 1960 Cleaned out to bottom with 12 1/4" bit. Pulled up to make connection. Unable to get to bottom. Circulation broke out in sump. Pulled 12 1/4" bit and ran in with 5 jts. 4 1/2" drill pipe. Closed Hydril and pumped in 2 barrels water. Mud coming out of piling holes. Re-cemented with 425 sacks cement treated with 4% CaCl₂.
- Mar. 10, 1960 W.O.C. 24 hrs. Pulled out 4 1/2" drill pipe and reran same with bottom plugged off. Ran 1" pipe inside of 4 1/2" drill pipe and circulated with steam. Built up mud volume in tanks. Heated mud in tanks with steam.

Mar. 11, 1960

W.O.C. 16 hrs. Mixed mud in tanks. Heated inside conductor pipe with steam. Pulled out 1" pipe and 4 1/2" drill pipe. Ran in with 8 5/8" bit.

Mar. 12, 1960

Reamed hole from 150' to 180' Hole caving - rocks and gravel. Stuck pipe at 180' Unstuck pipe, mud breaking out in front of substructure. Pulled out 8 5/8" bit. Ran in with 5 jts. 4 1/2" drill pipe. Recemented with 260 sacks cement treated with 2% CaCl₂. Pulled 4 1/2" drill pipe. Reran with bottom plugged off. Ran 1" pipe to bottom of 4 1/2" drill pipe. Circulated steam inside 4 1/2" drill pipe. W.O.C. 6 1/2 hrs.

Mar. 13, 1960

W.O.C. 24 hrs. Heated inside of conductor with steam. Conditioned mud and raised viscosity.

Mar. 14, 1960

W.O.C. 9 hrs. Pulled out 1" pipe and 4 1/2" pipe. Ran in with 8 5/8" bit. Reamed out to 200' Gravel and heavy viscosity mud plugged flow lines and mud suction. Hole caving, unable to make connection.

Mar. 15, 1960

Reamed to 200', unable to make connection. Mud breaking out in front of substructure. Gravel falling in between 160' - 170' Pulled out 8 5/8" bit. Ran in open ended to 160' Recemented with 320 sacks cement, 2% CaCl₂, and 5% gel. Pulled out and reran 4 1/2" drill pipe with bottom jt., plugged. Ran 1" pipe inside of 4 1/2" drill pipe and circulated steam. Cleaned out all mud tanks.

Mar. 16, 1960

W.O.C. 24 hrs. Mixed high viscosity mud.

Mar. 17, 1960

W.O.C. 1 1/2 hrs. Ran in with 8 5/8" bit. Located top cement at 155' Drilled thru cement to 167' Cement was firm. Cleaned out to bottom. Drilled 8 5/8" hole from 200' - 310' Conductor pipe washed out, fluid coming in cellar. Pulled out bit and reran pipe in open ended. Recemented with 200 sacks cement treated 2% CaCl₂. Pulled out 4 1/2" drill pipe, plugged bottom jt. and reran in. Ran 1" pipe inside of 4 1/2" drill pipe and applied steam.

Mar. 18, 1960

W.O.C. 24 hrs. Conditioned mud.

Mar. 19, 1960

W.O.C. 24 hrs. Mixed mud to raise volume.

Mar. 20, 1960

W.O.C. 11 hrs. Ran in with 8 5/8" bit. Drilled cement from 150' to 170' Cleaned out to bottom, no cavings. Drilled from 310' - 367' (8 5/8" hole). Running 6000# on bit for deviation.

Mar. 21, 1960 Drilled 8 5/8" hole 367' - 375'
Hole deviation exceeding 1 degree. Pulled out 8 5/8" bit. Ran in with 12 1/4" tricone bit. Reamed 8 5/8" to 12 1/4" 154' - 311'

Mar. 22, 1960 Reamed 8 5/8" hole to 12 1/4" 311' - 359'

Mar. 23, 1960 Reamed 8 5/8" hole to 12 1/4" from 359' to 380'
Drilled 7 7/8" hole from 380' - 390'

Mar. 24, 1960 Drilled 7 7/8" hole from 390' - 425'
Reamed 7 7/8" hole to 8 5/8" hole from 375' - 425'
Drilled 8 5/8" hole from 425' - 485'. Lost 6" mud in tanks. Getting cement cuttings over shale shaker.

Mar. 25, 1960 Drilled 8 5/8" hole from 485' to 516'. Reduce hole size for deviation. Drilled 7 7/8" hole from 516' - 550'. Running 6 drill collars and 6000# on bit.

Mar. 26, 1960 Reamed 8 5/8" hole from 516' - 550'. Drilled 8 5/8" hole from 550' - 655'. Running 6 drill collars, 4000# on bit. Running Grant stabilizer on top of drill collars. Lost little mud.

Mar. 27, 1960 Drilled 8 5/8" hole from 655' - 702'. Running 6 drill collars and 4000# on bit. Running cushion stabilizer 60' above bit. Hole caved in and conductor pipe washed out. Pulled out bit and ran in open ended to 150'. Recemented with 100 sacks Portland cement, 75 sacks Fondu cement treated with 4% CaCl₂ in Portland cement, and 150# sand with Fondu cement. W.O.C. 7 hrs.

Mar. 28, 1960 W.O.C. 24 hrs. Building up mud volume.

Mar. 29, 1960 W.O.C. 22 hrs. Ran in with 8 5/8" bit and conditioned mud at 160'

Mar. 30, 1960 Reamed out cement from 160' - 702'. Cement came over shaker green. Cleaned out to 702' and circulated. Drilled 8 5/8" hole from 702' - 762'. Running 3 drill collars, 6000# on bit. Controlled weight with automatic driller.

Mar. 31, 1960 Drilled 8 5/8" hole 762'. Ran in with 12 1/4" Pilot reamer for deviation purpose. Reamed 8 5/8" hole to 12 1/4" from 380' - 678'

April 1, 1960 Reamed 8 5/8" hole to 12 1/4" from 678' - 760'

April 2, 1960 Reamed 8 5/8" hole to 12 1/4" from 760' - 762' with tricone bit. Drilled 12 1/4" hole from 762' - 765'. Drilled 7 7/8" hole from 765' - 791'. Carrying 8000# on bit, running 12 drill collars. Cushion stabilizer and 3 drill collars above bit.

Apr. 3, 1960 Drilled 7 7/8" hole from 791° - 826° Cushion stabilizer 90° above bit. Running 12 drill collars and 4000# on bit.

Apr. 4, 1960 Drilled 7 7/8" hole from 826° - 828° Twisted off at 729° Left in hole 7 7/8" bit, bit sub, and 3 drill collars. Ran in with Bowen overshot and recovered fish. Tool joint on collar twisted off. Ran in with 8 5/8" bit. Reamed 7 7/8" hole from 765° - 828° Running 12 drill collars and 4000# on bit, with automatic driller.

Apr. 5, 1960 Drilled 8 5/8" hole from 828° - 874° Twisted off at 493° Left in hole 8 5/8" bit, bit sub, and 12 drill collars. Ran in with Bowen overshot and recovered fish. 4 1/2" drill pipe twisted off 1° above drill collars. Ran in with 8 5/8" bit. Picked up new string of 4 1/2" pipe.

Apr. 6, 1960 Drilled 8 5/8" hole from 874° - 916° Twisted off at 889° Left in hole 8 5/8" bit, bit sub and 1 drill collar. Ran in with Bowen overshot and rec. fish. Ran in with 8 5/8" bit, 3 drill collars and carrying 3000# on bit.

Apr. 7, 1960 Drilled 8 5/8" hole from 916° - 947°

Apr. 8, 1960 Drilled 8 5/8" hole from 947° - 964° Drill string parted in tool joints on top of second drill collar leaving bottle neck up. Recovered with Bowen overshot.

Apr. 9, 1960 Drilled 8 5/8" hole from 964° - 1002°

Apr. 10, 1960 Drilled 8 5/8" hole from 1002° - 1029°

Apr. 11, 1960 Drilled 8 5/8" hole from 1029° - 1064°

Apr. 12, 1960 Drilled 8 5/8" hole from 1064° - 1098° Running 3 drill collars, 2000# on bit.

Apr. 13, 1960 Drilled 8 5/8" hole from 1098° - 1145°

Apr. 14, 1960 Drilled 8 5/8" hole from 1145° - 1186°

Apr. 15, 1960 Drilled 8 5/8" hole from 1186° - 1200° Schlumberger ran E.Log, Microlog, Dipmeter, and Temperature log. Reamed 8 5/8" hole to 12 1/4" from 765° - 775°.

Apr. 16, 1960 Reamed 8 5/8" hole to 12 1/4" from 775° - 952°

Apr. 17, 1960 Reamed 8 5/8" hole to 12 1/4" from 952° - 1199° Removed B.O.P. equipment to ream out to 17 1/2" with Pilot reamer.

- Apr. 18, 1960 Reamed 12 1/4" hole to 17 1/2" from 210' - 376' with Pilot reamer. Stuck bit at 242' worked loose.
- Apr. 19, 1960 Reamed 12 1/4" hole to 17 1/2" from 376' - 552' with Pilot Reamer.
- Apr. 20, 1960 Reamed 12 1/4" hole to 17 1/2" from 552' - 706' with Pilot reamer.
- Apr. 21, 1960 Reamed 12 1/4" hole to 17 1/2" from 706' - 809' with Pilor reamer. Drill collars, wobbled off in tool joint. Left 7 drill collars in hole. Recovered with Bowen overshot. 1 cone broken off reamer and left in hole.
- Apr. 22, 1960 Reamed 12 1/4" hole to 17 1/2" from 809' - 860' with Pilot reamer.
- Apr. 23, 1960 Reamed 12 1/4" hole to 17 1/2" from 860' - 921' with Pilot reamer. Broke pin off drill collar while making up.
- Apr. 24, 1960 Reamed 12 1/4" hole to 17 1/2" from 921' - 958' with Pilot reamer.
- Apr. 25, 1960 Reamed 12 1/4" hole to 17 1/2" from 958' - 1008' with Pilot reamer. Wobbled off drill collars. Left 1 drill collar and reamer in hole. Recovered with Bowen overshot.
- Apr. 26, 1960 Reamed 12 1/4" hole to 17 1/2" from 1008' - 1132' with Pilot reamer.
- Apr. 27, 1960 Reamed 12 1/4" hole to 17 1/2" from 1132' - 1160' with Pilot reamer. Wobbled off drill collars in tool joint. Left 3 drill collars and reamer in hole. Recovered fish with Bowen overshot. Located reamer cone at 1160' Ran 12 1/4" bit and cleaned out to fish.
- Apr. 28, 1960 17 1/2" hole reamed to 1160' Fishing for cone. Made 2 trips with basket made out of 10 3/4" casing. No recovery. Ran 8 5/8" bit and cleaned out from 1160' - 1175' Pulled out and ran basket - no recovery. Reran basket and recovered 5 large rocks. Ran 12 1/4" bit and cleaned out on bottom. Milled on fish and circulated. Made 2 more trips with basket. No recovery.
- Apr. 29, 1960 Reamed 12 1/4" hole to 17 1/2" from 1160' - 1180' with pilot reamer. Located junk at 1180', milled on iron. Pulled 17 1/2" reamer and ran 12 1/4" bit. Milled on junk. Pulled out and ran side door basket. No recovery. Ran open end 10 3/4" casing to mill on junk. Milled 4 hrs. and pulled out. Ran in with 8 5/8" bit and cleaned out to 1200' Pulled out and ran side door basket. No recovery. Ran 12 1/4" bit with 2 cones cut off to centre fish.

April 30, 1960

17 1/2" hole reamed to 1180' Fishing for cone. Pulled 12 1/4" bit. Ran side door basket. No recovery. Ran impression block. Impression not too good. Ran 10" guide on overshot with bent single to centre junk. Pulled out and ran Hollier basket mill. Milled 4 hrs. on junk. Pulled out and changed heads. Milled 5 hrs. on junk. Pulled out and ran Poor Boy basket. No recovery. Pulled out and ran Bowen Magnet. Recovered bearings and small pieces of junk.

May 1, 1960

Reamed 12 1/4" hole to 17 1/2" from 1180' - 1197' with Pilot reamer. Reran Magnet and recovered a few small pieces of iron. Ran 8 5/8" W-7 bit and drilled 6" of new hole. Reran Magnet and recovered a few small pieces of iron. Made 3 runs with side door basket and recovered few small pieces of iron.

May 2, 1960

17 1/2" hole reamed to 1197' Fishing for cone. Ran 7 5/8" Hollier Basket with Klustrite Head. Milled on iron for 22 hrs. Pulled out and found cone and pin wedged in basket.

May 3, 1960

17 1/2" hole reamed to 1197' Fishing for cone. Made 1 run with magnet. No recovery. Ran side door basket. No recovery. Ran Hollier basket and milled 6 1/2 hrs. Pulled out and ran basket. No recovery. Ran magnet. No recovery. Ran side door basket. No recovery. Made new 8 5/8" basket. Ran and recovered cone shank. All large pieces of 17 1/2" Reamer cone and shank recovered.

May 4, 1960

Reamed 12 1/4" hole to 17 1/2" from 1197' - 1200' with 17 1/2" tricone bit. Drilled 17 1/2" hole from 1200' - 1202'. Made 1 run with magnet. No recovery.

May 5, 1960

17 1/2" hole to 1202' W.O.C. 15 3/4 hrs. 13 3/8" Casing cemented at 1191'. Ran 37 jts. of 54# J-55, 8 rd. S.T. & C. new smls. casing. Baker guide shoe at 1191'. Baker float collar at 1155'. Used Dowell's skid unit to mix 900 sacks cement, treated with 2% CaCl₂. Used 1 rubber plug and rig pump to displace cement. Estimated 75 sacks returned to surface.

May 6, 1960

17 1/2" hole at 1202' W.O.C. 24 hrs. 13 3/8" casing at 1191'. Cut off 20" conductor and 13 3/8" casing. Welded on a 12" Ser. 900 type W.F. Cameron casing bowl. Installed B.O.P. equipment.

May 7, 1960

17 1/2" hole at 1202' 13 3/8" casing at 1191'. Finished installing B.O.P. Series 900 Pressured up on Hydril to 1000 PSI. for 30 mins. Held OK. Pressured up on blind rams 1025 psi. Held OK. Ran in with 12 1/4" bit and located plug at 1155'. Closed 4 1/2" rams and

May 7 (Cont'd.)

pressured up to 1200 psi. Held OK. Drilled plug at 1155' Float collar at 1156' and solid cement to 1191' Cleaned out to 1202' Closed Hydril and pressured up to 400 psi. Held OK. Pulled out and changed bits to 8 5/8".

May 8, 1960

Drilled 8 5/8" hole from 1202' - 1251' Running 4 drill collars, 12 1/4" cushion stabilizer up in 13 3/8" casing, 3000# on bit. RPM 120, 400 PSI.

May 9, 1960

Drilled 8 5/8" hole from 1251' - 1341' Running surveys every 30' Running 9 - 6 1/4" drill collars, 10,000# on bit and 8 5/8" cushion stabilizer 100' above bit. Rotary speed 120 RPM Pump pressure 400 PSI.

May 10, 1960

Drilled 8 5/8" hole from 1341' - 1447' Circulating stuck pipe. Reduced weight to 4000# on bit. 9 drill collars in string. Cushion stabilizer above bit 100' Rotary speed 120 RPM Pump pressure 400 PSI. Stuck pipe at 1425' pulling out. Increased viscosity and worked loose.

May 11, 1960

Drilled 8 5/8" hole from 1447' - 1464' Pulling out fish. Pulled out and found fish twisted off at 1464' Left in hole 8 5/8" bit, bit sub, 3 - 6 1/4" collars, and stabilizer. Ran in with Bowen overshot and recovered stabilizer and 3 drill collars. Found that drill collars parted above bit sub. Ran in with Bowen overshot and recovered 8 5/8" bit and sub. Both twist-offs occurred 2" above shoulder of pin. 9 drill collars in string. 6000# on bit. 8 5/8" cushion stabilizer 65' above bit. Rotary speed 120 RPM Pump pressure 400 PSI.

May 12, 1960

Drilled 8 5/8" hole from 1464' - 1529' Reaming to bottom. 9 drill collars in string, 8 5/8" cushion stabilizer 65' above bit. 12,000# on bit. Pump pressure 500 PSI. Rotary speed 120 RPM

May 13, 1960

Drilled 8 5/8" hole from 1529' - 1604' Drilling. 9 drill collars in string, 2-8 5/8" Grant reamers at 6' and 36' above bit. 8 5/8" Grant stabilizer 80' above bit. 10,000# on bit. Pump pressure 500 PSI. Rotary speed 120 RPM

May 14, 1960

Drilled 8 5/8" hole from 1604' - 1678' Drilling. 9 drill collars in string. 2-8 5/8" Grant reamers at 6' and 36' above bit. 8 5/8" Grant stabilizer 80' above bit, 12,000# on bit. Pump pressure 600 PSI. Rotary speed 100 RPM.

May 15, 1960

Drilled 8 5/8" hole from 1678' - 1735' Drilling. Installed desander. 9 drill collars in string. 2-8 5/8" reamers 6' above bit. 2 cushion stabilizers 40' and 250' above bit. 16,000# on bit. Rotary speed 100 RPM. Pump pressure 600 PSI.

May 16, 1960

Drilled 8 5/8" hole from 1735' - 1761' Drilling. Twisted off and left in hole 8 5/8" bit, bit sub, stabilizer reamer and cushion stabilizer. Made 2 runs and recovered fish with Bowen overshot. 6 drill collars in string. 2-8 5/8" stabilizer reamers above bit sub. 1 cushion stabilizer 60' above bit. 15,000# on bit, rotary speed 100 RPM Pump pressure 600 PSI.

May 17, 1960

Drilled 8 5/8" hole from 1761' - 1809' Drilling. 6 drill collars in string. Cushion stabilizer 60' above bit. 15,000# on bit. Pump pressure 600 PSI Rotary speed 110 RPM.

May 18, 1960

Drilled 8 5/8" hole from 1809' - 1914' Drilling 7-6 1/4" collars in string. Cushion stabilizer 66' above bit. 12,000# on bit. Rotary speed 120 RPM Pump pressure 800 PSI.

May 19, 1960

Drilled 8 5/8" hole from 1914' - 2014' Drilling 7-6 1/4" collars in string. Cushion stabilizer 66' above bit. 12,000# on bit. Pump pressure 800 PSI Rotary speed 120 RPM.

May 20, 1960

Drilled 8 5/8" hole from 2014' - 2118' Drilling 7-6 1/4" collars in string. Cushion stabilizer 66' above bit. 10,000# on bit. Rotary speed 130 RPM Pump pressure 800 PSI.

May 21, 1960

Drilled 8 5/8" hole from 2118' - 2214' Drilling 7-6 1/4" collars in string. Cushion stabilizer 66' above bit. 6,000# on bit. Pump pressure 800 PSI Rotary speed 120 RPM.

May 22, 1960

Drilled 8 5/8" hole from 2214' - 2290' Drilling 7-6 1/4" collars in string. 2 cushion stabilizers 36' - 96' above bit. 6000# on bit. Rotary speed 120 RPM Pump pressure 850 PSI.

May 23, 1960

Drilled 8 5/8" hole from 2290' - 2365' Drilling 7-6 1/4" collars in string. 2 stabilizer reamer 11' and 41' above bit. 1 cushion stabilizer 101' above bit. 8000# on bit. Rotary speed 120 RPM Pump pressure 850 PSI.

May 24, 1960

Drilled 8 5/8" hole from 2365' - 2443' Drilling 4-6 1/4" collars in string. Cushion stabilizer 96' above bit. 7000# on bit. Rotary speed 120 RPM Pump pressure 850 PSI.

May 25, 1960

Drilled 8 5/8" hole from 2443' - 2530' Drilling 4-6 1/4" collars in string. Cushion stabilizer 96' above bit. 7000# on bit. Rotary speed 120 RPM Pump pressure 850 PSI.

- May 26, 1960 Drilled 8 5/8" hole from 2530' - 2602' Tripping. 4-6 1/4" collars in string. Cushion stabilizer 96' above bit. 9000# on bit. Rotary speed 120 RPM Pump pressure 850 PSI.
- May 27, 1960 Drilled 8 5/8" hole from 2602' - 2732' Drilling. 4-6 1/4" collars in string. Cushion stabilizer 96' above bit. 7-10,000# on bit. Rotary speed 120 RPM. Pump pressure 850 PSI.
- May 28, 1960 Drilled 8 5/8" hole from 2732' - 2832' Drilling. 7-6 1/4" collars in string. Cushion stabilizer 96' above bit. 14,000# on bit. Rotary speed 110 RPM Pump pressure 875 PSI. United Directional Survey Ltd. ran a survey. Started running Sperry Sun single shot surveys.
- May 29, 1960 Drilled 8 5/8" hole from 2832' - 2860' Tripping. 9-6 1/4" collars in string. Cushion stabilizer 96' above bit. 14,000# on bit. Rotary speed 110 RPM Pump pressure 975 PSI.
- May 30, 1960 Drilled 8 5/8" hole from 2860' - 2911' Running survey. 9-6 1/4" collars in string. Cushion stabilizer 96' above bit. 14,000# on bit. Rotary speed 110 RPM Pump pressure 975 PSI.
- May 31, 1960 Drilled 8 5/8" hole from 2911' - 2958' Drilling. 9-6 1/4" collars in string. Cushion stabilizer 96' above bit. 20,000# on bit. Rotary speed 110 RPM Pump pressure 975 PSI.
- June 1, 1960 Drilled 8 5/8" hole from 2958' - 3011' Drilling. 14-6 1/4" collars in string. Cushion stabilizer 96' above bit. 30,000# on bit. Rotary speed 110 RPM Pump pressure 975 PSI.
- June 2, 1960 Drilled 8 5/8" hole from 3011' - 3063' Drilling. 14-6 1/4" collars in string. Cushion stabilizer 96' above bit. 30,000# on bit. Rotary speed 110 RPM Pump pressure 975 PSI.
- June 3, 1960 Drilled 8 5/8" hole from 3063' - 3117' Drilling. 14-6 1/4" collars in string. Cushion stabilizer 96' above bit. 30,000# on bit. Pump pressure 1150 PSI Rotary speed 70 RPM.
- June 4, 1960 Drilled 8 5/8" hole from 3117' - 3202' Drilling. 14-6 1/4" collars in string. Cushion stabilizer 96' above bit. 32,000# on bit. Rotary speed 60 RPM Pump pressure 1000 PSI.
- June 5, 1960 Drilled 8 5/8" hole from 3202' - 3291' Tripping. 14-6 1/4" collars in string. Cushion stabilizer 96' above bit. 32,000# on bit. Rotary speed 60 RPM Pump pressure 1000 PSI.

June 6, 1960

Drilled 8 5/8" hole from 3291' - 3386' Drilling
14 - 6 1/4" collars in string. Cushion stabilizer
96" above bit. 20,000# on bit. Rotary speed 60 RPM
Pump pressure 1000 PSI.

June 7, 1960

Drilled 8 5/8" hole from 3386' - 3500' Drilling
8-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 10,000# on bit. Rotary speed 120 RPM
Pump pressure 1000 PSI.

June 8, 1960

Drilled 8 5/8" hole from 3500' - 3589' Drilling
8 - 6 1/4" collars in string. Cushion stabilizer 96"
above bit. 10,000# on bit. Rotary speed 120 RPM
Pump pressure 1000 PSI.

June 9, 1960

Drilled 8 5/8" hole from 3589' - 3655' Drilling
8-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 10,000# on bit. Rotary speed 120 RPM
Pump pressure 1000 PSI.

June 10, 1960

Drilled 8 5/8" hole from 3655' - 3722' Drilling
8-6 1/4" collars in string. Cushion stabilizer 96"
above bit. Rotary speed 120 RPM 20,000# on bit.
Pump pressure 1000 PSI.

June 11, 1960

Drilled 8 5/8" hole from 3722' - 3759' Drilling
14-6 1/4" collars in string. Cushion stabilizer
96" above bit. 30,000# on bit. Rotary speed 60 RPM
Pump pressure 1000 PSI.

June 12, 1960

Drilled 8 5/8" hole from 3759' - 3792' Drilling
14-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 30,000# on bit. Pump pressure 1000 PSI
Rotary speed 60 RPM.

June 13, 1960

Drilled 8 5/8" hole from 3792' - 3807' Drilling
14-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 1-8 5/8" reamer above bit. 30,000# on
bit. Rotary speed 80 RPM Pump pressure 1000 PSI
Reamed tight hole from 3475' - 3796'

June 14, 1960

Drilled 8 5/8" hole from 3807' - 3822' Drilling
14-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 30,000# on bit. Rotary speed 60 RPM
Pump pressure 1000 PSI. Bits coming out undergaged.

June 15, 1960

Drilled 8 5/8" hole from 3822' - 3858' Drilling
14-6 1/4" collars in string. Cushion stabilizer 96"
above bit. 35,000# on bit. Rotary speed 38 RPM
Pump pressure 1000 PSI. Running button bits.

June 16, 1960

Drilled 8 5/8" hole from 3858' - 3920' Drilling
14-6 1/4" collars. Cushion stabilizer 96" above bit.
40,000# on button bit. Rotary speed 38 RPM Pump
pressure 1000 PSI.

- June 17, 1960 Drilled 8 5/8" hole from 3920' - 3974' Drilling 14-6 1/4" collars. Cushion stabilizer 96' above bit. 40,000# on button bit. Rotary speed 38 RPM Pump pressure 1000 PSI.
- June 18, 1960 Drilled 8 5/8" hole from 3974' - 4020' Drilling. 14-6 1/4" collars. Cushion stabilizer 96' above bit. Junk sub. 40,000# on button bit. Pump Pressure 1000 PSI. Rotary speed 36 RPM Recovered few buttons of bit in junk sub.
- June 19, 1960 Drilled 8 5/8" hole from 4020' - 4079' Tripping. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in string. 40,000# on button bit. Pump pressure 1000 PSI. Rotary speed 38 RPM.
- June 20, 1960 Drilled 8 5/8" hole from 4079' - 4114' Tripping. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 36 RPM Pump pressure 1000 PSI. Bits coming out undergaged and coring out in centre. Reamed 4" to bottom.
- June 21, 1960 Drilled 8 5/8" hole from 4114' - 4132' Drilling. 14-6 1/4" collars. Cushion stabiliser 96' above bit and junk sub in drill string. 40,000# on button bits. Rotary speed 35 RPM Pump pressure 1000 PSI.
- June 22, 1960 Drilled 8 5/8" hole from 4132' - 4152' Drilling. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 35 RPM Pump pressure 1000 PSI.
- June 23, 1960 Drilled 8 5/8" hole from 4152' - 4164' Fishing for cones. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 35 RPM Pump pressure 1000 PSI. Lost 2 cones off button bit. Made 2 runs with magnet and recovered cones and bearings.
- June 24, 1960 Drilled 8 5/8" hole from 4164' - 4187' Drilling. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 34 RPM Pump pressure 1000 PSI. Tool joints on drill pipe wearing.
- June 25, 1960 Drilled 8 5/8" hole from 4187' - 4205' Cutting Core #1 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 34 RPM Pump pressure 1000 PSI. Ran in with magnet before coring. Ran in with 6 1/8" Hycolog diamond bit 4195' - 4208' 40% recovery.
- June 26, 1960 Drilled 8 5/8" hole from 4205' - 4228' Drilling. 14-6 1/4" collars. Cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 34 RPM Pump pressure 900 PSI Reamed 6 1/8" hole to 8 5/8" hole 4195' - 4208'

June 27, 1960

Drilled 8 5/8" hole from 4228' - 4264' Tripping.
14-6 1/4" collars. Cushion stabilizer 96' above bit
and junk sub in drill string. 45,000# on button bits.
Rotary speed 34 RPM Pump pressure 800 PSI Laid down
19 joints 4 1/2" drill pipe. Tool joints and boxes
under 5 1/2" O.D.

June 28, 1960

Drilled 8 5/8" hole from 4264' - 4313' Drilling
14-6 1/4" collars. Cushion stabilizer 96' above bit
and junk sub in drill string. 45,000# on button bits.
Rotary speed 34 RPM Pump pressure 900 PSI.

June 29, 1960

Drilled 8 5/8" hole from 4313' - 4365' Drilling
14-6 1/4" collars. Cushion stabilizer 96' above bit
and junk sub in drill string. 35,000# on button bit.
Rotary speed 60 RPM Pump pressure 1000 PSI.

June 30, 1960

Drilled 8 5/8" hole from 4365' - 4406' Drilling
14-6 1/4" collars. Cushion stabilizer 96' above bit
and junk sub in drill string. 45,000# on button bit.
Rotary speed 35 RPM Pump pressure 1300 PSI.

July 1, 1960

Drilled 8 5/8" hole from 4406' - 4494' Tripping.
14-6 1/4" collars. 8 5/8" Cushion stabilizer 96' above
bit and junk sub in drill string. 45,000# on button
bit. Rotary speed 34 RPM Pump pressure 1100 PSI.
Recovering buttons from bits each trip in basket.

July 2, 1960

Drilled 8 5/8" hole from 4494' - 4561' Drilling.
14-6 1/4" collars. 8 5/8" cushion stabilizer 96'
above bit and junk sub in drill string. 45,000# on
button bit. Rotary speed 34 RPM Pump pressure 1100
psi.

July 3, 1960

Drilled 8 5/8" hole from 4561' - 4612' Drilling
14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above
bit and junk sub in drill string. 45,000# on button
bit. Rotary speed 34 RPM Pump pressure 950 PSI.

July 4, 1960

Drilled 8 5/8" hole from 4612' - 4654' Drilling
14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above
bit, safety joint and junk sub in drill string.
48,000# on button bits. Rotary speed 34 RPM Pump
pressure 900 PSI.

July 5, 1960

Drilled 8 5/8" hole from 4654' - 4702' Drilling
14-6 1/4" collars. 8 5/8" cushion stabilizers 96' above
bit, safety joint and junk sub in drill string.
48,000# on button bits. Rotary speed 34 RPM Pump
pressure 900 PSI.

July 6, 1960

Drilled 8 5/8" hole from 4702' - 4754' Drilling
14-6 1/4" collars. 8 5/8" cushion stabilizers 96'
above bit and junk sub in drill string. 48,000# on
button bits. Rotary speed 34 RPM Pump pressure 1150
PSI.

July 7, 1960

Drilled 8 5/8" hole from 4754' - 4818' Tripping. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 48,000# on button bits. Rotary speed 34 RPM Pump pressure 1100 PSI.

July 8, 1960

Drilled 8 5/8" hole from 4818' - 4875' Drilling. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 45,000# on button bit. Rotary speed 34 RPM Pump pressure 1100 PSI. Laid down 19 jts. of 4 1/2" drill pipe with boxes and pins under 5 1/2" O.D.

July 9, 1960

Drilled 8 5/8" hole from 4875' - 4913' Tripping. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 40,000# on button bit. Rotary speed 34 RPM Pump pressure 1100 PSI. Lost 300 PSI on pump pressure. Pulled out 22 stands and found wash out jt. Ran 8 12/32" diamond bit. Made 4' Bit was damaged.

July 10, 1960

Drilled 8 5/8" hole from 4913' - 4980' Drilling. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 45,000# on button bit. Rotary speed 34 RPM Pump pressure 1100 PSI.

July 11, 1960

Drilled 8 5/8" hole from 4980' - 5032' Drilling. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 45,000# on button bits. Rotary speed 34 RPM Pump pressure 1100 PSI.

July 12, 1960

Drilled 8 5/8" hole from 5032' - 5102' Tripping. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 45,000# on button bits. Rotary speed 34 RPM Pump pressure 1100 PSI.

July 13, 1960

Drilled 8 5/8" hole from 5102' - 5157' Tripping. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 34,000# on button bits. Rotary speed 34 RPM Pump pressure 1100 PSI.

July 14, 1960

Drilled 8 5/8" hole from 5157' - 5220' Drilling. 14-6 1/4" collars. 8 5/8" cushion stabilizer 96' above bit and junk sub in drill string. 35,000# on bits. Rotary speed 65 RPM Pump pressure 1150 PSI.

July 15, 1960

Drilled 8 5/8" hole from 5220' - 5282' Drilling. 14-6 1/4" collars. 8 5/8" Drilco reamer and safety joint in string. 40,000# on bits. Rotary speed 65 RPM Pump pressure 1150 PSI. Stuck pipe at 5178' Unstuck pipe and reamed out hole 5132' - 5234' Laid down 5 jts. 4 1/2" drill pipe boxes and pins under 5 1/2" O.D.

July 16, 1960

Drilled 8 5/8" hole from 5282' - 5353' Drilling. 14-6 1/4" collars, 8 5/8" Drilco reamer and safety joint in drill string. 35,000# on bits. Rotary speed 65 RPM Pump pressure 1100 PSI. Reamed tight spot at 4250' and 4' off bottom

July 17, 1960

Drilled 8 5/8" hole from 5353' - 5410' Drilling. 14-6 1/4" collars, 8 5/8" Drilco reamer, 8 5/8" cushion stabilizer 100' above bit and safety joint in string. 32,000# on bits. Rotary speed 65 RPM Pump pressure 1100 PSI. Reamed last 8' to bottom.

July 18, 1960

Drilled 8 5/8" hole from 5410' - 5491' Drilling. Running 14-6 1/4" collars, 8 5/8" Drilco reamer, 8 5/8" cushion stabilizer 100' above bit. 25-30,000# on bits. Rotary speed 65 RPM Pump pressure 1100 PSI. Bits coming out undergaged.

July 19, 1960

Drilled 8 5/8" hole from 5491' - 5553' Drilling. Running 14-6 1/4" collars, drilco reamer, 8 5/8" cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 80 RPM Pump pressure 1100 PSI. Calipered 4 1/2" drill pipe. Laid down 4 jts. under 5 1/2" O.D. on pins and boxes.

July 20, 1960

Drilled 8 5/8" hole from 5553' - 5598' Drilling. Running 14-6 1/4" collars, drilco reamer, 8 5/8" cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 60 RPM Pump pressure 1150 PSI.

July 21, 1960

Drilled 8 5/8" hole from 5598' - 5641' Drilling. Running 14-6 1/4" collars, drilco reamer, 8 5/8" cushion stabilizer 100' above bit. 30,000# on bits. Rotary speed 60 RPM Pump pressure 1150 PSI.

July 22, 1960

Drilled 8 5/8" hole from 5641' - 5708' Tripping. Running 14-6 1/4" collars, drilco reamer, 8 5/8" cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 60 RPM. Pump pressure 1100 psi. Calipered tool joints on 4 1/2" drill pipe. Laid down 6 joints.

July 23, 1960

Drilled 8 5/8" hole from 5708' - 5808' Tripping. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 60 RPM. Pump pressure 1100 PSI.

July 24, 1960

Drilled 8 5/8" hole from 5808' - 5911' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 20,000# on bits. Rotary speed 80 RPM Pump pressure 1000 PSI.

July 25, 1960

Drilled 8 5/8" hole from 5911' - 6002' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 20,000# on bits. Rotary speed 80 RPM Pump pressure 1100 PSI. Laid down 9 jts. of 4 1/2" drill pipe undergaged.

July 26, 1960

Drilled 8 5/8" hole from 6002' - 6089' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 85 RPM Pump pressure 1000#.

July 27, 1960

Drilled 8 5/8" hole from 6089' - 6153' Tripping. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 25,000# on bits. Rotary speed 85 RPM Pump pressure 1000 PSI. Calipered 4 1/2" drill pipe. Laid down 3 jts. under gauged.

July 28, 1960

Drilled 8 5/8" hole from 6153' - 6193' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 100' above bit. 30,000# on bits. Rotary speed 60 RPM Pump pressure 1100 PSI.

July 29, 1960

Drilled 8 5/8" hole from 6193' - 6247' Tripping. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 130' above bit. 30,000# on bits. Rotary speed 60 RPM Pump pressure 1100 PSI.

July 30, 1960

Drilled 8 5/8" hole from 6247' - 6277' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 130' above bit. 25,000# on bit. Rotary speed 60 RPM Pump pressure 1100 PSI. Laid down 12 jts. 4 1/2" drill pipe undergauged.

July 31, 1960

Drilled 8 5/8" hole from 6277' - 6316' Drilling. Running 14-6 1/4" collars, Drilco reamer, cushion stabilizer 130' above bit. 25,000# on bits. Rotary speed 60 RPM Pump pressure 1000 PSI.

August 1, 1960

Drilled 8 5/8" hole from 6316' - 6320' Logging. Schlumberger ran E.Log, Microlog, Dipmeter and temperature survey.

August 2, 1960

Drilled 8 5/8" hole from 6320' - 6337' Drilling. Running 14-6 1/4" collars, cushion stabilizer 60' above bit and added string reamer approx. 2700'. 35,000# on bits. Rotary 60 RPM Pump pressure 1000 PSI.

August 3, 1960

Drilled 8 5/8" hole from 6337' - 6372' Tripping. Running 14-6 1/4" collars, Grant reamer 30', and cushion stabilizer 90' above bit. 30,000# on bits. Rotary 60 RPM Pump pressure 1000 PSI.

August 4, 1960

Drilled 8 5/8" hole from 6372' - 6403' Tripping. Running 14-6 1/4" collars, cushion stabilizer 60' above bit, and string reamer at 2700'. 30,000# on bits. Rotary 60 RPM Pump pressure 1000 PSI.

August 5, 1960

Drilled 8 5/8" hole from 6403' - 6445' Drilling. Running 14-6 1/4" collars and Keyseat wiper on top of collars. 30,000# on bit. Rotary 60 RPM Pump pressure 1000 PSI. Stuck pipe pulling out at 2620' Worked loose in 2 1/2 hours.

August 6, 1960

Drilled 8 5/8" hole from 6445' - 6501' Drilling.
Running 14-6 1/4" collars and Keyseat wiper on top
of collars. 30,000# on bit. Rotary speed 65 RPM
Pump pressure 1100 PSI.

August 7, 1960

Drilled 8 5/8" hole from 6501' - 6535' Drilling.
Running 14-6 1/4" collars and Keyseat wiper on top.
30,000# on bit. Rotary speed 65 RPM Pump pressure
1100 PSI. 30,000# to 40,000# drag whilst pulling
first 10 stands off bottom.

August 8, 1960

Drilled 8 5/8" hole from 6535' - 6591' Drilling.
Running 14-6 1/4" collars and Keyseat wiper on top.
28,000# on bits. Rotary speed 65 RPM Pump pressure
1100 PSI.

August 9, 1960

Drilled 8 5/8" hole from 6591' - 6658' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top and
Grant reamer 35' above bit. 28,000# on bits. Rotary
speed 65 RPM Pump pressure 1200 PSI.

August 10, 1960

Drilled 8 5/8" hole from 6658' - 6717' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top of
collars and Grant reamer 35' above bit. 30,000# on
bits. Rotary speed 65 Pump pressure 1100 PSI.

August 11, 1960

Drilled 8 5/8" hole from 6717' - 6736' Cored 6736-6754'
Cut 6 1/8" core with Hycolog diamond bit 6736' - 6754'
100% recovery.

August 12, 1960

Drilled 8 5/8" hole from 6754' - 6798' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top collar
and Grant reamer 60' above bit. 30,000# on bits.
Rotary speed 65 RPM Pump pressure 1100 PSI.

August 13, 1960

Drilled 8 5/8" hole from 6798' - 6861' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top collar
and Grant reamer 60' above bit. 30,000# on bit.
Rotary speed 65 RPM Pump pressure 1100 PSI.

August 14, 1960

Drilled 8 5/8" hole from 6861' - 6922' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top collar
and Grant reamer 60' above bit. 30,000# on bit.
Rotary speed 65 RPM Pump pressure 1100 PSI.

August 15, 1960

Drilled 8 5/8" hole from 6922' - 6979' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top
collar and Grant reamer 60' above bit. 30,000# on
bit. Rotary speed 65 RPM Pump pressure 1100 PSI.

August 16, 1960

Drilled 8 5/8" hole from 6979' - 7034' Drilling.
Running 14-6 1/4" collars, Keyseat wiper on top
collar and Grant reamer 30' above bit. 30,000# on
bit. Rotary speed 65 RPM Pump pressure 1100 PSI.
Reamed last 380' to bottom.

- August 17, 1960 Drilled 8 5/8" hole from 7034' - 7104' Tripping. Running 14-6 1/4" collars, Keyseat wiper on top collar and Grant reamer 30' above bit and cushion stabilizer 90' above bit. 30,000# on bits. Rotary speed 65 RPM Pump pressure 1100 PSI.
- August 18, 1960 Drilled 8 5/8" hole from 7104' - 7152' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar and Grant reamer 30' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1100 PSI.
- August 19, 1960 Drilled 8 5/8" hole from 7152' - 7188' Reaming at 7096' Running 14-6 1/4" collars, Keyseat wiper on top collar and Grant reamer 30' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1100 PSI. Stuck pipe at 1700' running in. Pulled loose and reamed 1724' to 1785' Ran on in hole and started reaming at 6718' Reaming hard 90' off bottom.
- August 20, 1960 Drilled 8 5/8" hole from 7188' - 7258' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar and Grant reamer 30' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1000 PSI.
- August 21, 1960 Drilled 8 5/8" hole from 7258' - 7315' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar and Grant reamer 30' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1000 PSI. Reamed 360' to bottom.
- August 22, 1960 Drilled 8 5/8" hole from 7315' - 7364' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bits. Rotary speed 65 RPM Pump pressure 1000 PSI.
- August 23, 1960 Drilled 8 5/8" hole from 7364' - 7434' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bits. Rotary speed 65 RPM Pump pressure 1000 PSI. 2 1/2 turns of torque in rotary table. Drill string weighs 126,000# First 10 stands off bottom drags from 180,000# to 220,000#.
- August 24, 1960 Drilled 8 5/8" hole from 7434' - 7486' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bit. Rotary speed 65 RPM Pump pressure 1000 PSI.
- August 25, 1960 Drilled 8 5/8" hole from 7486' - 7522' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bit. Rotary speed 65 RPM Pump pressure 1000 PSI. Ran single shot survey on sand line. Sheave broke and sand line cut on rig brace. Ran in with spear and fished out at 1000'.

August 26, 1960

Drilled 8 5/8" hole from 7522' - 7581' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bit. Rotary speed 65 RPM Pump pressure 1000 PSI. Pulled out 14 stands of drill pipe and recovered washed out single.

August 27, 1960

Drilled 8 5/8" hole from 7581' - 7630' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 25,000# on bits. Rotary speed 65 RPM Pump pressure 1000 PSI.

August 28, 1960

Drilled 8 5/8" hole from 7630' - 7674' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 30,000# on bits. Rotary speed 65 RPM Pump pressure 1000 PSI.

August 29, 1960

Drilled 8 5/8" hole from 7674' - 7735' Tripping. Running 14 - 6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 30,000# on bits. Rotary speed 65 RPM Pump pressure 1000 PSI.

August 30, 1960

Drilled 8 5/8" hole from 7735' - 7786' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit and junk sub. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1150 PSI.

August 31, 1960

Drilled 8 5/8" hole from 7786' - 7824' Tripping. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1150 PSI. Cut Core #3 7804 - 7824' 20' Rec. 19'

September 1, 1960

Drilled 8 5/8" hole from 7824' - 7860' Reaming. Running 14-6 1/4" collars, Keyseat wiper on top collars, Grant reamer 60' above bit. 30,000# on bit. Rotary speed 65 RPM Pump pressure 1150 PSI Reamed 6 1/8" hole from 7804' - 7824' to 8 5/8".

September 2, 1960

Drilled 8 5/8" hole from 7860' - 7900' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 35,000# on bit. Rotary speed 65 RPM Pump pressure 1100 PSI.

September 3, 1960

Drilled 8 5/8" hole from 7900' - 7939' Drilling. Running 14-6 1/4" collars, Keyseat wiper on top collar, Grant reamer 60' above bit. 35,000# on bit. Rotary speed 65 RPM Pump pressure 1100 PSI.

September 4, 1960

Drilled 8 5/8" hole from 7939' - 7975' Drilling. Running 8-6 1/4" collars and Keyseat wiper on top collar. 20,000# on bit. Rotary speed 65 RPM Pump pressure 1150 PSI. Made a connection and pipe stuck going to bottom. Worked pipe loose after 4 1/2 hrs.

September 5, 1960

Drilled 8 5/8" hole from 7975' - 7994' Drilling. Running 14-6 1/4" collars and Keyseat wiper on top collar. 40,000# on bit. Rotary speed 65 RPM Pump pressure 1200 PSI. On trips pipe dragging 270,000# on first 15 stands.

September 6, 1960

Drilled 8 5/8" hole from 7994' - 8004' Pulling out to log. Schlumberger unable to get below 7000' with dipmeter. Ran in with bit and increased mud viscosity to 285.

September 7, 1960

T.D. 8004' Conditioning hole. Schlumberger ran E.Log and Microlog. Unable to get dipmeter to bottom. Conditioning hole.

September 8, 1960

T.D. 8004' W.O.C. Plug #1. Unable to get dipmeter to bottom. Ran in to 8004' with bit and conditioned hole. Stuck pipe at 7944' while pulling out. Unstuck pipe and finished pulling out. Ran in open ended to 1250' to run cement plug. Cement Plug #1 1250 - 1150' Used Dowell skid unit, 125 sacks cement treated with 2% calcium. Located solid cement at 1125' 10:30 p.m. R.R. 11:00 p.m.

September 9, 1960

Tearing out.

September 10, 1960

T.D. 8004'. Tearing out. Stripped BOP equipment. Cut off casing bowl. Put in 5 sacks cement on top 13 3/8" casing and welded plate over 13 3/8" casing. Welded name plate 4' above ground level to 13 3/8" casing. Dismantling rig.

September 11, 1960

Dismantling rig. Rust proofing motors for storage.

September 12, 1960

Dismantling rig. Laid derrick down. Rust proofing motors for storage.

September 13, 1960

Stripped derrick. Crews packing away equipment.

September 14, 1960

Rig dismantled. Cleaned up camp and locked up each unit. Flew crews out.