Log of Horizon

Burying Intermediate Pipe, Project Horine Experiment Drilling
Feb. 19, 1961

Deputy NE2 pipe San Diego at 6:20 AM this morning.

All men on board: Gripper (New)

Pete Johnson - Skipper, Jack Jennings - Chief burr.
Bob Snyder - Electrician, Joe Nicholson - Ast burr.
Frank Lamprecht - Eng. Inmod. - PB.
Jeff Jennings - Eng. Sheppard - PB.

Our destination: 32° 35' 53" N, 117° 37' 10" W.
Depth: 315' fathoms.

Purpose: To bury 2 burrs - deep enough and far enough to be between 100' apart with our two floats and which meets the burying speed transducer.

At 8:45 arrived on the #1 117° 36.7' W. picked up
by Jim Farmer on PB. - 50' fathoms on NBB
block of San Diego Bridge. We dropped
string presently. Current running due NW.
San Diego NE - 3 knots W.

Comment: Problems everywhere. Experic.
Held considerable difficulty with propeller, flooded with garbage. Bury transducer w/guideline.
Feb 18, 1961

Attachment assembled. Lower outer flange with 25# wt. - floated OK.

1331 - Compensated Centering Anchor,

- immediately helped in reeling in between anchor and moving vessel at anchor and spread
- Pulley block and 3/4" X 60" wire and retracted cap: made falling in top of a frame,
- fairlead - no equipment
- proper brake base and dislocated RH picked up by gun boat K. Rich and Hansen (AF) on board.

Great difficulty picking up proper - swing's body in oil and when we started again, it broke 1000 rpm. - Then having main line on anchor broke.

1900 - Pulley under 2 21 meters down and reeled up anchor to 3/4" wire with preformed and "Eletragram" - using Holden and stuffing box.
- Around anchor and proper brake base again.
- Then 5 minutes - Continued to brake anchor anyway.

1544 On bottom pulley from 957 meters to 870 meters - still hunting buoy after tying off each one clear.

Lost buoy with top part stuck to 3/4" with wire preformed and 
- tried to staked several lines to cut the 3/4" - used end tools.

- Lost buoy.
1635 Start to lower buoy - Anchor port or.
Nice press fitting and lower ring. Almost immediately pull lower buoy and secure shortening for day. Also always secure buoys at all times - it will help with anchor work.

1900 After dinner, reviewed future work and concerns. To be continued:

1. Cargo line blocks to be renamed.
2. Monitor lifting block for proper lifting.
3. Tie off sub - wire plates become to be secured post (snatch) by solid wire, with an abate thinkers.
4. Bight bungee split end bungs looks.
5. Shroud adjustment hole ragged and probably broken, repair, splice these ends.
6. Shroud local task cannot be purchased.
7. After read at upside down.
8. Next worst, best standing by another side.

Note list of things to be done by crew and busy gang and those to done when
Feb 18, 1961

Some Location

Sea and Current reduced - low wind and swell - sometime - excellent day.

Started at 8 AM to lay second buoy - discovered one rope and anchor. Buoy and rope on surface of storm damaged by digging into anchor - anchor inside tension.

Stepped off about 12 noon at one and discovered - core was even more damaged.

Attempted to put wire through hand winch system night before, but broen failed to hold buoy and therefore could not lower anchor and wire.

Resumed situation with Pete Johnson, Jack Looming, and Captain Alligone and decided further efforts were going to be exessi of cost destructive, and decided to return to port to reeig buoys - getting core under tension.

Made telephone, Jack Dallyman was unable to get buoy spooling equipment 8 tonight and received on freight on 13th.

15 lbs. Secured buoy and anchor and returned to port. Richard Becner could not return.

16 lbs. Returned to port - and by Dallyman and Trapline - returned plan put tomorrow.
Feb 30

At Deck - NEE, San Diego

Started spooling off wire onto Bigby rig. A single-core spooling rig mounted on back of truck. Similar to well drilling; electric-driven, lightweight but well suited - actually lighter weight even.

Great success in using and saving time by using raising derricks for better deck clearance - should have done before.

Now it is possible to adjust derricks with 5.

Bigby rig, spooling off wire onto sandown spool - will spool off short length (80 feet) and then spool off next section, then back up under tension.

Completed spooling off 1st section - continue spooling.

Droppped and DelaRosa went to fix up oil drill, mechanism to hold tension on chuck down.

Ran out of problems at Horsemen, Cass II out to sew up Mar 28.

Feb 31

At Deck - NEE, San Diego

Spooling wire - spooling wire onto Bigby's working derrick. Spooling over the flower. Dolly foreward slowly at 1/400ths - until just back at same end.

Decided to go ahead and change out tool system; will go over spooling devices to find the ones of the old, self-actuating. Now hand twenty and hand twenty in the other end, then the vane-work and hand.

That it is possible to adjust derricks with 6.

Spooling wire out for repair, 19/4 - denmark.

Brand new to proceed with a 7. Bigby's spare drill heads broke and are only are with knowledge of spooling. Can't take a chance of breaking every spooling head with everybody.

Put a new driller's head on and ran good. Our new spooler on 19/4 and the thirty. Certify today, have the replaced Cass E.

Got telephone. Electric tools to charge will take new equipment to electric log test site.
Feb 23

At Dock-MEL, San Diego

Sparking wire - will buy. Pole spacing wire off into steel drum under tension. Only leave (300') sparking off drum - Northern naked. Wire must be lead wound by hand because Bogey found wood and Plain. Leadwood are not for tension and cannot be adjusted without new lead screw. Also one grip on tension sparking connection will be taken off at Northern side.

Transformer shown from up boat and we had to send it back to shop to be repaired. Hand morning and delay of operating Northern. Sparked Steel. Which will be representatives. The wire is unusual size - natural pulling. Ship, etc.

Consolidate Core Sub on Board

Delivered Core tubes to Camp test site.

Feb 23

At Dock-MEL, San Diego

Sparking wire. Completed splicing of 750 ft.

72,000 ft. to Wood. More wood. Bogey rig under 150,000 ft. tension. Started splicing back under 150,000 ft. tension.

All splicing made up of leaded and all hardware pretty well in order except for a few minor items. Crew working very well together and there is a spirit of enthusiasm despite the problems and hurdles so far.
At Dock, NEL, San Diego

Continuing to sport fish in the usual manner.

Considerable current. Completed spooling in first 3000' of line. Drift very lightly pulled.

At least 200cm of water between the boat and the bottom.

and we should have no problem with the water digging into the boat. Though the water is not overly
turbulent, and there is some crossing and breaking of the gale warning, but a good condition
to long term saltwater fishing at this time of year. We are being very careful about
some and that slows down the spooling operation
to a crawl.

Observation:

We have encountered the big systems so close to
the Tornado of the wind and have used odd
occasional wind to meet buy design requirements.

that we have created very special heading
and not buying requirements. The buy systems
and designing with little consideration for the
implementation problems. This could be very
right, but we have been unable to meet the
implementation problems that are now
experiencing. We are now very carefully
considered and supported - cannot travel

damage - come across special storms, travel
windless, etc. In general, but some stops, etc.

in case. We've been able to travel very
large storms - expensive failures.

Feb 25

At Dock, NEL, San Diego.

Continuing to sport fish in the usual manner.

Under 150cm of water.

At about 1100, observed as grain in

wave and ceased working with about

2000' of spooled onto the 4000' and

200' remaining on Day's rig.

Collected in tropics and D'Algorithm and they were

Commented that had experienced the current down
became a great filling at the external line
at the flange was hitting on the blown door

guard. They recommended that we would to

the wire immediately. Did not buy that, we

dear to see very much and decided to wait

til morning to see where we go from here.
At Deck, NE3 - San Diego

FEB 26

Tripped wind off some wire to start we could retrieve supposed freight - found drags - gondola came over and it sounded like crissed bearings - tried to land in sunshine so lighted by pens - returned called Funk to and finally arranged meeting with him, Walter, and Trippe, dlleyman and Buddy King at 1:30.

Remained points of control and decided that brag bearing might be problem. Buddy King and I went there and there was some doubt and decided spot side (drum side) bearing necessary in bit and shaft side bearing cracked slightly. Bearings brought in Chicago earlier.

(Note: This occurred February 26th, about 1:30 AM. Walter, Walter, and Trippe, dlleyman and Buddy King at 1:30.)

At Deck, NE2 - San Diego

Feb 27

Received bearings 6AM - San Diego Airport. 3:30 - commdid reassembling engine. Walter and I purchased last remaining bearing.

Reason why which bearings cracked, and Crissed Sprung

It appears that roller bearings cracked because they were already worn and should have been replaced. When load of 6 up to 20 West Tensaw, acting a pressure 3ft of water (barely 5 ft) was created in case bearings to sanction time at pressure was reduced and carried up.

The flying waih is an important problem - The packed wire carries wire against the. Thames which we express 10 feet to tons with pressure 6 or 7 feet wire on the drum in the Tensaw.

Bartis Completed assembly much and started spinning on remaining wire. 30 feet per minute - we will use accumulator wire to keep loads full of drum.
Feb 25

At Deck WSL, San Diego.

Continued spinning wire and instructed the crew to be sure to put the A-frame safely on the deck. (sketch)

Not to stretch any wire or accept load without excessive vibration - it was general and it was not in any safety area (see sketch above).

Made up two connection bolts (see sketch above).

Model 1

Spliced at 964 (1942) with D. Sagar to determine position.

It is required all day to complete installing the auxiliary system on one of these remaining2 antennas left anyway to be on the site by mid day to start.

$950.00 arrived for original location and shortly the crew will be getting ready to establish our position and lay barge.

Shall get all the shutters, thrusters, etc for the first thing this evening and get ready to go - expect in the next ten days except shield somewhat shorter than we anticipated - it was more than expected. However, finally connected as planned.

Starts - Do they call them gage - waters are whole.
March 2, 19__

Location: 32° 19.5' N - 117° 37.5' W

March 1: The survey was completed. The survey was attempted. The vessel was found not at sea and did not return the data. The survey was completed at the site (we did the first try) Depth 514 ft forward.

0100 In position and rigging out to lower anchor.
0200 Potting water buoy using polyethylene line to 100 yd distance.
0900 Layering sand with 5-750' watertight hose. Capacitor with force attached by 4 ft.
0945 Second anchor has been deployed. Survived (Amount 100' to 100' on anchor line, 740' water), and moved into place: 8 on anchor.

0930 Touched bottom 937 metres (speaker broke loose and sank). We continued to lower anchor. All tests were carried out. Tests oil and dirt were collected. We worked hard. We prepped grip on test line. Attached steel and buoying 5 and 3 are previous calibrations in 3/4 wave.

0930 Buoying 5 or 3, water buoy. We are working on a model. We used test line. Test line to 100 yd end. We are waiting until another west test.

Temporary attached buoy to wave with 30 yd. We moved in line and used test line. We put gyros - using 3' test.

1100 Buoy on place and proceeding to rig up.

For second buoy. Used off almost due east of.
5/10th buoy location for placing 2nd buoy (100 ft from first on line) to preventer second from the N.W.

1230 Having water on the keel. Proceeded to instal 3rd buoy, using identical method to first, but do that used to use gyro because it keeps breaking loose without做得 by the Gyrostad release.

1300 Second buoy activated and settled to be 1350 ft from last buoy. Lat was slight and proceeded to utilize final surface buoy. Connection on the surface buoy and to install stops at 1100. Using second surface buoy — 9 ft in diameter because there are two buoys are to be same rely with no water point.

![Diagram of buoying setup]

Pulled stake out of wire until last almost directly over buoy and secured 2/10th with last weight end of wire using stake. Trouble with a nice pressure (1100 lbr, necessary) left 35-40 of new top on pulling. Dec

...
1630 hrs. One more entrance of 2nd boat. Discovered 16. hose at 1800 ft. We were winding out 346 fathoms. Lowest draft was 60 fathoms. We raised 13/15 ft. We put 2nd boat on the bottom. 2nd boat was seen. OK. It is very calm and so close that boats can be seen from the surface (the wind was strong but anyway).

1945 hrs. Everyone aboard and all aboard.

These words are purposely put in preparation for laying 1 fiber optic cable.

2030 hrs. Everyone asleep except the watch.
March 3

Some locations (approximately)

0745 Abandoned coast report from bridge where

\text{You...}

0745 Launching ship and proceeded to recover

\text{The...}

0745

Followed ship and proceeded to recover

\text{The...}

Recalled the other ship and discussed

\text{The...}

0800 It is blowing up strongly and we are not

\text{Our...}

0800 Called Bill Barnes at the Central

\text{Reascended...}

1100 hrs. Received message from Bill Barnes and

\text{He...}

1230 hrs. Bill Kiefer's report of the

\text{The...}
by crossing the Channel - a second
bogy and concluded a search using Norton's
sensors. Possibility at evening bogs located
by scans from surface may assist finding
the uses closer to repositioning bogy position.
Collected Franscy and asked how to set the
for possible ... yet at Saturday evening -

1430 Boats were lowered to the
anchor for store, after which
we are in the vicinity, three smaller bogs are nearby.

The smaller bogs with a small pile of weight
seemed to be weight of safe load with a
unusual ability to be able to get with a propeller
or prop properly. Using normal size of boat
shrimp tied together.

1430 Searching by being around the corner bogy
by 5 rings. The Captain of the bogy
seems instantly certain that the
wagon located bogy is exactly where the deep
bogs were lost - this cannot believe,
but there is no harm in giving him
all the rope he wants for here.

There is a lesson to be learned here.
Continuing conditions should be kept
on bogs after they have been located
and the conditions maintained.
Our usually attracted to the bogy in 100 bogs. We sought have
been told to ask for the two
if we had had a second start with.
Ames to obtain information concerning the winners, and often to accompany them in search for lost luggage.

1820 Called Earl Harry - Drove ready for any fortification inventory. Returned to inspect to check schedule with McPherson and Hope.

1830 Returned out and checked again with dinner and ready. Left in Cass 3 and evidently just missed meeting. Day's work finished as well as Earl Harry, who need to another hill. Cass crew scored by rolling incident. Understood a pool check and sketchy test being arranged for Cass by 100. More guards to be placed as curfew which went under cover in 270 yards.

The Black guides were sent with chock chains, and the guide wires were checked by the rolling and swinging of the guide rings and shown allowing poles to twist and thus the rails must be removed, strengthened, and regrafted. A break for our big event, but a tough piece of experience.
March 5

After a three-day wait for Doctor Fenn (who was in bed with a flu), we continued the search. It was found that the bugs were not in the same place. The bugs were in their original location.

We then expanded the search to include the entire area around the bugs.

March 6

Early in the morning, we continued the search for the bugs. We found them in their original location. We continued the search until late in the evening.

March 7

continued search with the bugs in their original location. The search was successful. The bugs were found in their original location. We continued the search until late in the evening.

March 8

continued search with the bugs in their original location. The search was successful. The bugs were found in their original location. We continued the search until late in the evening.

1930 hrs. Start to dig up sand near the bugs to make a better place for them. The bugs are already placed in a bed and are enjoying it.

10-12 - Marlin
11-13 - John
12-14 - John
13-14 - John
14-15 - John
15-16 - John
16-17 - John

Playing with the bugs in the bugs' original location. The bugs are enjoying the experience.

Getting dinner at the hotel.
March 6

Location: At U.S. Buys.

All watches during 1300 to 1800 continued
and work proceeded.

1300 Weather: Calm and clear - southwest. Position
1320: A large and deep buoy was
1330: Found a large and small buoy
were clearing directly under
the first small buoy. Engagement made in an
object on the water.

1340: Started to make up and lower
a new deep buoy. Giving up our

1350: Continued to locate 20 deep buoys
were.

1400: Started to make up and lower
a new deep buoy. Giving up our

1430: Started to make up and lower

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1800: Started to make up and lower
Location: Mann's Cove - at la Jolla Site

0900 By radio Johnson reports lugs are out with 2nd SH 18,000 ft. 

1230 ORCA leaves NEc with all extra material requested by R. Johnson 

1430 ORCA meets Norman and removes equipment via ship to la Jolla 

1630 Norman leaves la Jolla to arrive at the site of the new ORCA 

Buys holding position, riggers and tender secure rigging, la Jolla position established and ready for test.