



WATER-RIGHT DOCKET

Fire Island National Seashore

Docket No: 3

TALISMEN AREA WELL

Supporting Hydro Data

11-08-1967: memo from chief, office of land and water rights, wsc; well yield.

154 WSC-OLW

November 8, 1967

Memorandum

To: Chief, Development Planning and Project Control, PSC
Attention: Mr. Jack Longworth

From: Chief, Office of Land and Water Rights, WSC

Subject: Fire Island National Seashore

Following through on Mr. Moore's telephone conversation with Mr. Longworth November 8 the information on Sailer's Haven is enclosed. For your information this well yields about 100 gpm.

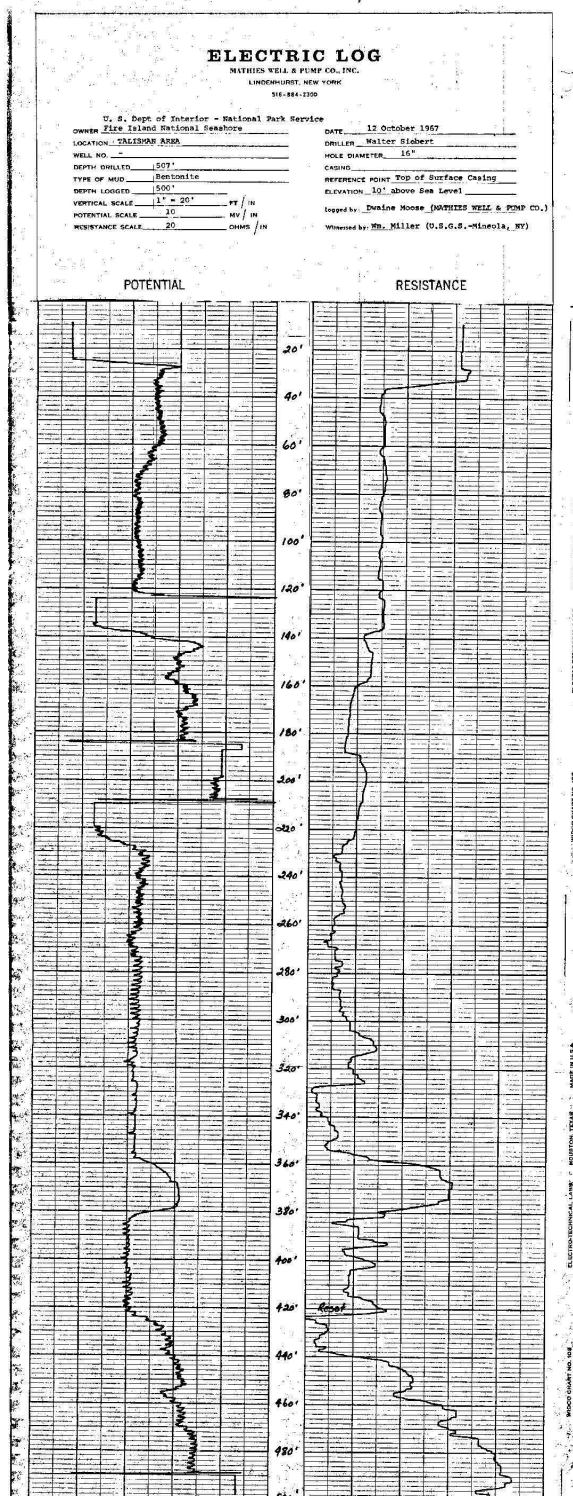
Additional wells are being drilled at the present time at Talisman and Whale House Point areas. The Talisman area well is producing about 100 gpm.

Richard L. Stanton

Richard L. Stanton

Enclosure

cc:
Regional Director, Northeast
Superintendent, Fire Island
VASO - Mr. Reed
Chief, PSC - DAC



Other Supporting Information

Talisman site - Well S31113T

The Talisman test-well site is about three-fourths of a mile west of Water Island development on Fire Island (enclosure 10). The well site is about 200 feet north of the crest of high dunes. Altitude of the land surface at the site is about seven feet above msl.

Construction and development procedures at the Talisman well site were similar to those at the Whalehouse Point site. A 16-inch-diameter, 503 foot-deep test hole was drilled by the hydraulic rotary method. Two temporary screen settings were attempted; however, only the settings at a depth of 470-473 feet adequately responded to development. The results of a chemical analysis of the water indicated that the water was of good chemical quality and that the iron content, 0.64 mg/l, was only slightly higher than desirable; the pH was 6.2 (enclosure 9).

Core and flume (mud-ditch) samples were collected during drilling and a single-point electric resistivity log was made in the hole. The driller's log, description of cores, and the geologic and resistivity logs are shown in enclosures 11, 12, and 13. The hole was cased with 6-inch diameter steel pipe to a depth of 464 feet (enclosure 14). The screen zone and the screen-slot and gravel-pack sizes were selected on the basis of an examination of core samples, mechanical analyses of selected cores (enclosures 15 and 16), and the electric log. A 6-inch (nominal), by 20-foot, type 304 stainless-steel, number 30 slot, wire-wound screen was attached to the bottom of the casing from 464 to 484 feet below land surface.

After development with air by surging, the well was test-pumped for 185 minutes at a rate of 100 gpm. The total drawdown was 33 feet (enclosure 17). Accordingly, the specific capacity of the well was 3 gpm per foot of drawdown. Chemical analyses of the water collected during pumping from the permanent and temporary screen settings are given in enclosure 9.

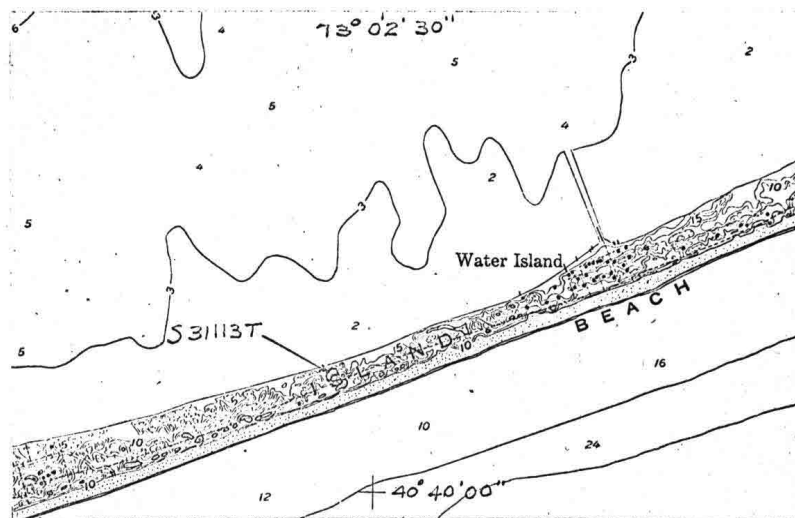
The well at the Talisman site, when equipped with a proper pump, should yield sufficient water for the contemplated needs of the National Park Service. The water has a low pH and a dissolved-iron content that is slightly higher than optimum. Therefore, treatment of the water might be desirable to remove some of the iron and to adjust the pH.

Enclosure 9.--Chemical analyses of ground water from wells S31112T and S31113T.

Results given in milligrams per liter except as indicated 1/

	Well number and screen interval in feet below land surface			
	S-31112T		S-31113T	
	Temporary screen (442-445)	Permanent screen (440-465)	Temporary screen (466-469)	Permanent screen (464-484)
Date sampled	12-7-67	12-29-67	10-9-67	11-1-67
Yield of well, in gpm (pump or flow)	15 (pumped)	108 (pumped)	6 (pump)	100 (pu
Color	Clear	Clear	Clear	Clear
Odor	None	None	None	None
Turbidity (SiO ₂)	1.7	4.7	10.5	0.6
pH	5.9	6.0	6.2	6.0
Iron (Fe)	1.68	1.00	0.64	0.50
Manganese (Mn)	0.05	0.05	0.05	0.05
Chloride (Cl)	5	6	7	8
Total hardness (CaCO ₃)	12	16	0	0
Alkalinity (CaCO ₃)	12	8	24	16
Carbon dioxide (CO ₂)	24	13	24	25
Flouride (F)	-	-	-	-
Nitrate (NO ₃ as N)	0.02	0.02	0.02	0.30
Dissolved solids (residue on evaporation)	110	40	-	36
Specific Conductance (in micromhos at 25°C)	42	36	62	48

1/ Analyses conducted by Suffolk County Water Authority



SCALE 1:24000
0 1/2 1 MILE

ENCLOSURE 10.-- LOCATION OF WELL S-31113T.

Enclosure 11. -- Driller's log of Well S31113T

<u>Lithologic description</u>	<u>Thickness (feet)</u>	<u>Depth (feet)</u>
Sand; grits; gravel; shells	132	132
Sand, green; grits; clay	35	167
Sand, black; layers of clay; shells	15	182
Clay, black; some sand streaks	12	194
Silt; mica; fine sand; clay	9	203
Clay, solid	16	219
Clay, silt; mica; fine sand	68	287
Silt and clay, very hard, compacted	19	306
Sand, black; mica, clay streaks	15	321
Clay, solid, black	26	347
Clay, black; sand streaks	5	352
Sand, fine; mica; clay streaks	21	373
Sand, fine to medium, gray	1	374
Clay, black; lignite	39	413
Clay, lignite, fine sand; mica	5	418
Clay, solid; lignite	1	419
Clay; lignite; mica. Very hard	5	424
Sand, fine; mica; lignite; clay streaks	2	426
Sand, fine to medium	3	429
Sand, fine; silt; lignite and clay streaks	35	464
Sand, medium to coarse; lignite	16	480
Sand, fine to medium; clay streaks	6	486
Sand, fine; silt; lignite; mica	1	487
Sand, fine to medium; mica; lignite	13	500
Clay, black; fine sand; lignite; mica	8	508

Enclosure 12.--Description of cores from well S31113T.

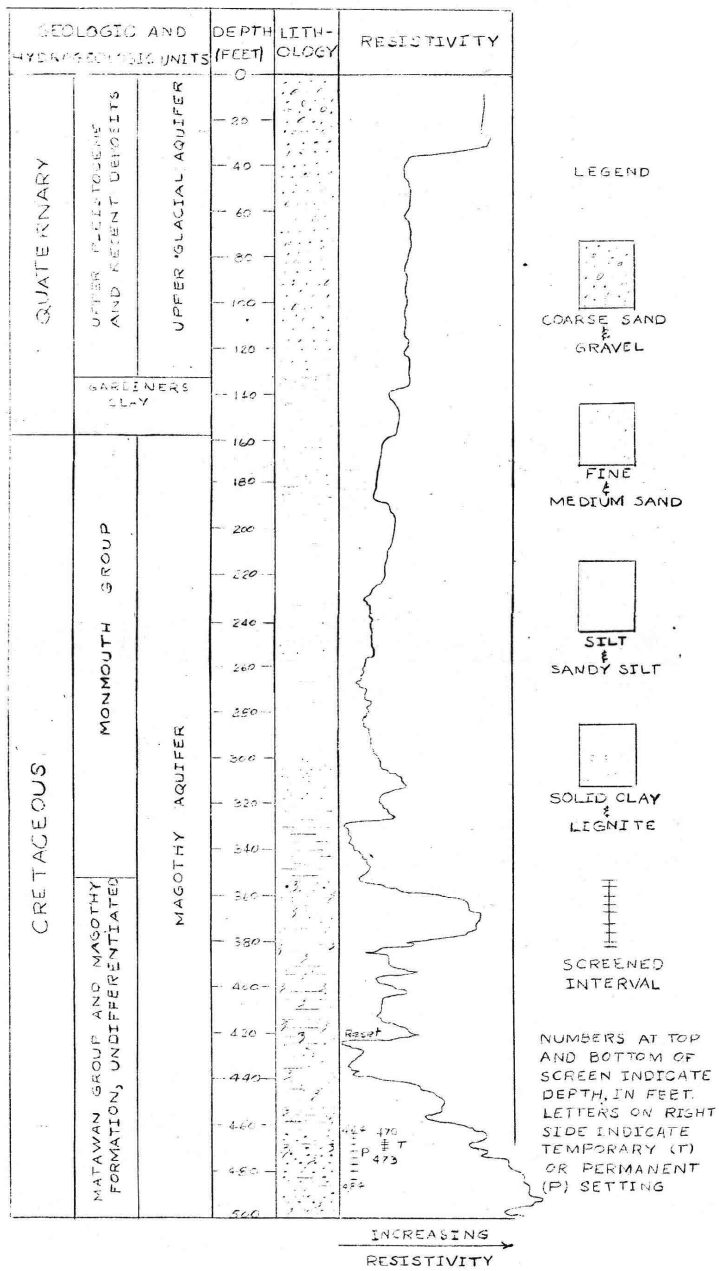
Core Number	Depth (feet)	Lithologic Description
1	133	Silt, greenish-brown to greenish-black with grayish-green to green inclusions; glauconitic; less than 20 percent fine to medium quartz sand; 5 percent of core consisted of buff to tan oxidized inclusions that contained frosted quartz of silt to pebble size.
2	200	Silt, green to greenish-black; glauconitic; less than 25 percent very fine to fine, angular to well rounded quartz sand.
3	250	Silt, black to greenish-black; micaceous; glauconitic; trace of very fine to fine quartz sand; 1 large rock pebble, 3 cm x 1 cm x .75 cm in center of core; shell fragments sparse.
4	300	Silt, solid, dark gray to greenish-gray and black, sandy and clayey; shells; less than 20 percent unidentified black mineral (chlorite?); Botryoidal glauconite.
5	310	Sand, very fine to medium, silty and clayey, black; quartzitic; fragments of greenish-black glauconite; few shell fragments.
6	320	Sand, medium to very coarse, black to greenish-black, clean to slightly silty, glauconitic; few small quartz pebbles.
7	330	Clay, solid, black, silty to slightly sandy; shell fragment.
8	340	Clay, solid, black, slightly silty; streaks of interbedded gray silt and very fine to fine, gray sand; streaks of very fine to medium, green, glauconitic sand.
9	350	Clay, solid, grayish-black, silty to sandy, coarse; streaks of medium to coarse, silty, green, glauconitic sand; streaks of black to grayish black sandy silt and silt; few thin layers (1 cm) of fine to very coarse, clean, gray sand; streaks of very fine, gray, sandy silt; scattered quartz pebbles (0.25 cm. dia.); Muscovite; pyrite inclusions; much of the material occurs as inclusions.

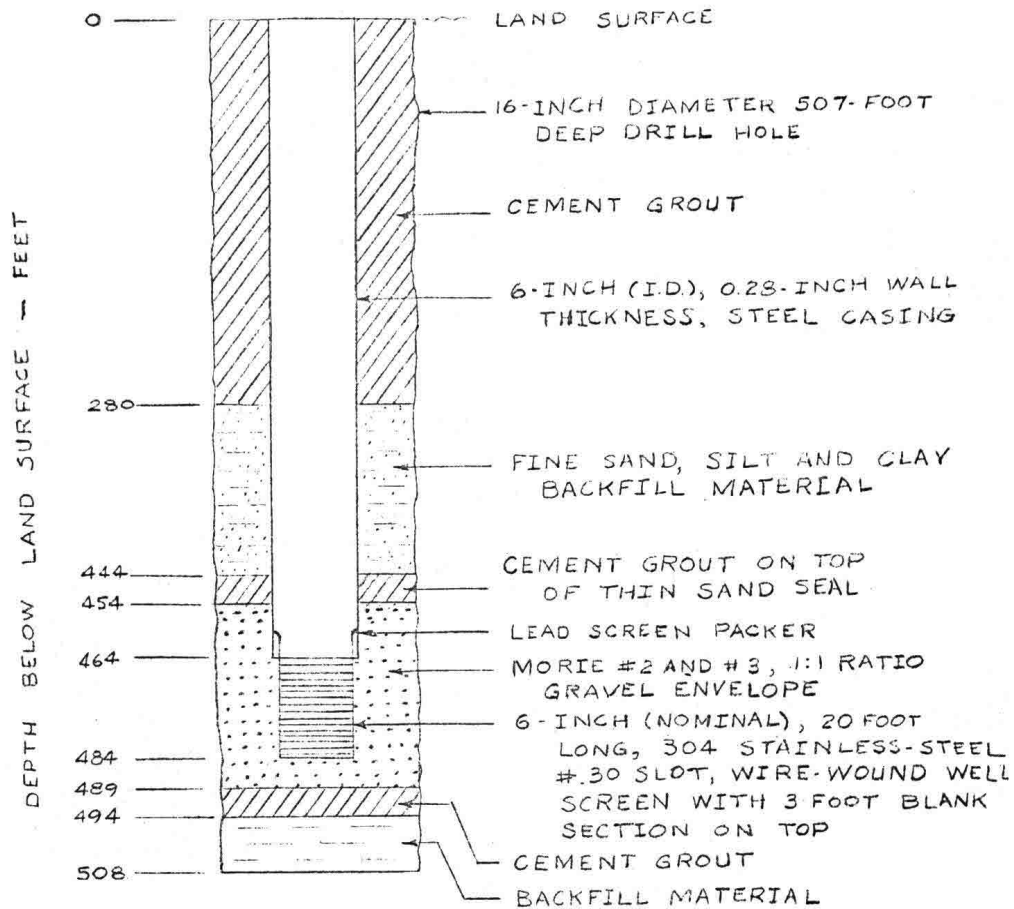
Core Number	Depth (feet)	Lithologic Description
10	355	Sand, fine to medium, trace of coarse, streaked gray and grayish-black, clayey to silty; streaks of light to dark gray clayey and silty sand to sandy clay and silt; dark gray layers are silty and clayey; light gray layers are relatively clean; 10 percent clean, gray, medium, sand; lignite; pyrite.
11	360	Sand, very fine to fine, some medium, relatively clean to silty, gray; layers of dark gray clay, silt, and sandy clay and silt; traces of lignite.
12	365	Sand, fine to medium, gray, clean to slightly silty; thin layers of lignite; layers of solid gray silt with pyrite inclusions.
13	370	Sand, fine to medium, gray, clean to slightly silty; thin layers of silty lignite; 1 1/2-inch layer solid lignite at bottom of core.
14	380	Clay, solid, black; 2-inch layer solid lignite.
15	385	Clay, very hard and solid, black; pieces of lignite; odor of SO ₂ .
16	390	Clay, black, very hard; layers of lignite; pyrite; odor of SO ₂ ; pyrite replacement after lignite.
17	395	Clay, solid, black, organic, with black to brown lignite; some thick layers of solid to rotten lignite; thick layers of solid black clay.
18	400	Clay, solid, black, slightly silty; pieces of lignite.
19	405	Clay, solid, black, very hard, slightly silty; lignite; pyrite replacement after lignite.
20	410	Clay, solid, black, very hard, slightly silty; small pieces of lignite; pyrite; very thin seams and inclusions of gray silt and very fine, gray sand.

Core Number	Depth (feet)	Lithologic Description
21	415	Sand, very fine to fine, gray, silty; layers of solid, dark gray clay; layers and fragments of solid lignite; layers of silt; 45 percent sand; 30 percent clay; 25 percent silt, silty sand and lignite.
22	420	Sand, very fine to medium, gray, slightly silty to silty; very thin layers of sandy silt; layers of solid, dark gray clay at top and bottom of core; traces of lignite.
23	425	Sand, fine to coarse, gray, clean to silty; layers of solid black clay; traces of lignite in clayey portions; some sandy silt.
24	430	Sand, very fine to fine, gray, silty to very silty; sandy gray silt; lignite; thick layers of gray plastic clay; micaceous.
25	435	Sand, very fine to medium, gray, very silty; layers of lignitic material; thin layers of clay.
26	440	Sand, very fine to medium, gray, silty, micaceous; layers of lignitic material; pyrite.
27	445	First 2 inches : Sand, coarse, gray, clean Next inch : Clay, solid, dark gray Next 2 inches : Sand, fine, gray, silty. Next 2 inches : Clay, solid, gray, silty. Last 4 inches : Lignite, solid, with thin clay s
28	450	Sand, very fine to fine, gray, silty; silt, sandy, gray; layers of lignitic material.
29	455	Sand, very fine to medium, gray, slightly silty to silty; trace of coarse sand.
30	460	Sand, very fine to medium, gray, very silty to silt; layers of solid black clay and lignite.
31	465	Sand, medium to coarse, gray, relatively clean.
32	470	Sand, medium to coarse, gray, clean; 4-inch solid lignite in center.

Core Number	Depth (feet)	Lithologic Description
33	475	Sand, medium to coarse, gray, slightly silty
34	480	Sand, medium to coarse, gray, slightly silty
35	485	Sand, medium to coarse, gray, clean to silty; some fine gravel; streaks of very fine to fine, gray, silty sand; thin layers of gray clay.
36	490	Sand, fine to medium, gray, silty; grading to fine, gray silty sand to gray sandy silt; layers of clay; 3-inch layer of solid lignite.
37	495	Sand, medium to coarse, gray; silty to slightly silty.
38	500	Sand, fine, gray, silty; layers of lignitic material interbedded with thin layers of micaceous silt; trace of pyrite replacement after lignite.

ENCLOSURE 13 GEOLOGIC AND RESISTIVITY LOGS
OF WELL S 31113 T





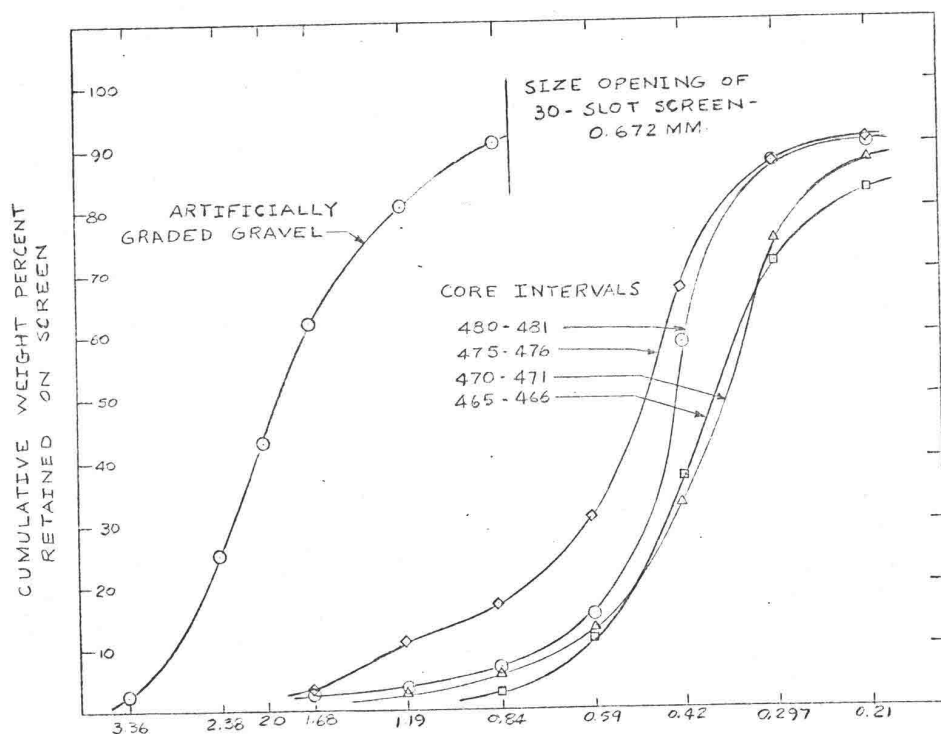
ENCLOSURE 14 -- DIAGRAM OF WELL S-31113T

Enclosure 15.--Results of mechanical analysis of artificially graded gravel envelope and selected cores from sell S31113 T 1/

Sieve opening (inches) (mm)	Cumulative weight percent of samples retained by indicated sieve opening <u>2</u> /							
	Artificially graded gravel	Depth of cores below land surface (feet)						
		465-466	470-471	475-476	480-481	485-486	490-491	495-496
0.132 3.36	3.4							
0.0937 2.33	25.4							
0.0787 2.00	43.1							
0.0661 1.68	62.0		-	3.33	2.9	12.15	-	14.5
0.0469 1.19	80.2	-	3.56	10.65	3.49	20.7	6.05	18.7
0.0331 0.84	90.8	3.03	6.32	16.7	6.4	30.7	17.0	23.8
0.0232 0.59	-	11.6	13.4	30.7	15.1	42.9	22.4	28.0
0.015 0.42	-	36.9	32.4	66.6	58.1	62.9	35.2	42.0
0.0117 0.297	-	71.6	74.3	86.6	87.3	79.3	55.7	87.0
0.0083 0.210	-	83.3	87.6	90.0	89.5	81.4	65.5	91.1
Retained in pan	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Mechanical analysis conducted by Mathies Well and Pump Co., Inc.

2/ Expressed as percent of total weight of sample.



ENCLOSURE 16--CUMULATIVE FREQUENCY CURVES OF ARTIFICIALLY
GRADED GRAVEL ENVELOPE AND SELECTED
CORES FROM WELL S-31113T

Enclosure 17.-- Pumping-test data from well S31113T, November 1, 1967

Time (EST)	Duration (minutes)	Drawdown (feet)		Yield	Specific Capacity (gpm per foot of drawdown)
		Below measuring point	Total		
1215	0	Static water level 12 feet above land surface ^{1/}			
1225	1	22.3	32.3	Adjusting discharge	
1227	2	22.5	32.5	99	3.05
1229	4	22.4	32.4	100	3.08
1234	9	22.4	32.4	99	3.05
1245	20	22.7	32.7	100	3.06
1300	35	23.0	33.0	102	3.09
1322	57	23.3	33.3	100	3.01
1340	75	23.2	33.2	101	3.04
1407	102	23.2	33.2	102	3.08
1440	135	22.9	32.9	100	3.04
1500	155	23.1	33.1	102	3.08
1505	Pump off				

^{1/} Static water level 10 feet above measuring point and approximately 19 feet above msl.

Because of the prevailing high water table.

- Care should be exercised in the siting, location and design of buildings and other facilities to provide for the installation of acceptable disposal systems. Factors which must be considered are the prevailing high ground water level on the island, the proximity to bathing, boating and shellfish areas. Comfort stations and change houses should be limited in size by the potential size of the disposal facilities which serve them.

Comfort stations should be constructed to allow for required slopes of the sewage disposal system and to keep the unit above the ground water level.

Major developed areas of the Seashore shall be provided with commercial electric power where it can be procured or existing lines can be extended at reasonable cost. Power lines shall be placed underground whenever possible.

Major and minor developed areas where power is required but cannot be procured shall have their requirements filled by the use of gasoline or diesel electric generating systems. These systems shall be furnished with sufficient spare parts, have adequate housing and be removed from the visitor use area.

POWER:

Electric power is furnished to the Seashore developed areas by the Long Island Lighting Company by means of submarine cables under the bay located at various points along the island with substations located on the island. Overhead transmission lines use company poles and poles of the U.S. Coast Guard where available.

Power is available in highly developed areas only; however, lines can be extended to serve most of the Seashore area.

COMMUNICATION:

Telephone:

The New York Telephone Company furnishes service to the highly developed areas of the Seashore by means of submarine cables under the bay which are located at various points along the island and lead to transmitter stations on the island. Overhead transmission lines are then carried on company poles, Long Island Lighting Company poles or poles of the U.S. Coast Guard where available. Direct burial cables are used for a few short stretches where required by local conditions. At the present time, service is limited and most residences in the highly developed area are being served by eight party lines.

Telephone service may be extended by the installation of additional submarine cables and/or by extending existing facilities on the island.

The U.S. Coast Guard has a telephone line from their station near Captree Island to their Moriches station. This line is overhead except for three short stretches where it is buried and goes roughly down the center of the island. It leaves the island near the Coast Guard Forge River station and becomes a submarine cable to the Moriches station.

A rough sand road passable for four-wheel drive vehicles runs along the overhead transmission line. This road has been interrupted in certain developed areas and where the cables go underground in these areas, vehicles must use the beach.

Telephone service shall be provided to all major developments within the present area of service and to points where it can be readily extended. Telephone lines in major development areas and heavy visitor use areas shall be placed underground when opportunity permits.

DEVELOPED AREAS	TYPES OF FACILITIES									
	MAINLAND PARTY TERMINAL	BOAT LIFT	BOAT DOCKS	BOAT LAUNCHING AREA	BOAT TRAILER & AUTO PARKING	VISITOR CONTACT STATION-RANGER OFFICE	INTERPRETIVE FACILITY	SNACK BAR	CAMPING STATION	PUBLIC AREA
MORICHES INLET	EXIST.									
EAST LEAD	PROF.									
PATTERSON QUASH	EXIST.									
SMITH POINT EAST	EXIST.									
SMITH POINT WEST	EXIST.									
PELICAN	EXIST.									
WHALESHOBBE POINT	EXIST.									
LONG COVE	PROF.									
WARD HILL	EXIST.									
TALISMAN	EXIST.									
SAILOON HAVEN	PROF.									
WEST BEACH	EXIST.									
	PROF.									

DISTRIBUTION OF DEVELOPMENT



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON PLANNING AND SERVICE CENTER
1730 NORTH LYNN STREET
ARLINGTON, VIRGINIA 22209

IN REPLY REFER TO
L54 WSC-CLW

January 18, 1968

Memorandum

To: Chief, Branch of Water Resources, WASO
From: Chief, Office of Land and Water Rights, WSC
Subject: Trip report by Hydraulic Engineer Moore to Fire Island

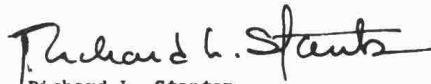
With reference to your memorandum dated December 11, 1967, regarding subject our comments are:

In paragraph 3 - The existing 6" well referred to is at Smith Point West and is the same well tested earlier for \$890. Both the Smith Point West and Talisman wells are located in pits and both presumably will be redesigned by Design and Construction to comply with U. S. Public Health Service regulations. Chief, Project Design Abbuehl's memorandum to Chief, Branch of Water Resources, WASO, on April 6, 1967, indicates that corrective action will be taken at Smith Point West. We presume that the same line of reasoning will prevail in regards to the Talisman well.

In paragraph 4 - The reference to Watch Hill is in error. It should read Talisman.

This office is presently preparing to contact the U. S. Geological Survey to undertake the task of inventoring of all deep wells on the island.

We will prepare the necessary water rights docket for all test wells drilled and have them distributed by January 31, 1968.


Richard L. Stanton

cc:
Regional Director, Northeast
Superintendent, Fire Island
Chief, D&C, PSC

872-11-29-67
11-29-67

L54 WSC-OLW

November 28, 1967

Memorandum Report

To: Chief, Office of Land and Water Rights, WSC
Through: Supervisory Hydraulic Engineer

From: Hydraulic Engineer, OLAWR, WSC

Subject: Field trip to Fire Island National Seashore, October 24-26, 1967

The undersigned visited the Seashore to:

- Purpose 1.** Check on the progress of the well drilling contract at Whale House Point and Talisman.
- Purpose 2.** To make a reconnaissance of the entire island.
- Purpose 3.** Office reports on physical development and water demand for Fire Island National Seashore.

PURPOSE 1. Contract #14-10-5-615-93

The contractor, Mathies Well and Pump Company, Inc., of Lindenhurst, Long Island, New York, was drilling at Talisman. The driller had drilled to 508 feet and had screened depths 464 feet to 484 feet. At the time of the visit the contractor was grouting the well and was expecting to complete the well on or about the middle of November. Estimated yield of well is 100 gpm. Enclosed is a copy of well log for the test well drilled at Talisman Area.

FINANCES: In discussions with Mr. Greene, Administrative Assistant of the Seashore, and with Mr. Miller, Geologist, U.S. Geological Survey, it was brought out that Addendum #1, issued to all prospective bidders on May 19, 1967, had double the necessary quantities of core samples and drive-point sample settings for each construction site. As a result of this, it was estimated that the Government will realize a savings of about \$5,000 without sacrificing any technical information that may be obtained from the well.

During the course of the discussions, it was also noted that Geologist Miller has been communicating with Assistant Superintendent Norris and Administrative Assistant Greene every week on the progress or lack of progress of the test well drilling operation. Geologist Miller is scheduled to be transferred to Billings, Montana, by Thanksgiving and at the time of the meeting did not know who his replacement would be.

PURPOSE 2. RECONNAISSANCE

On October 26, Mr. Greene, Mr. Miller, and the undersigned drove down the island from Smith Point County Park to Robert Moses State Park to acquaint ourselves with and to get a rough idea on the number of wells existing on the Island. Because of lack of time on this trip to conduct a thorough investigation, only general information was noted.

It appears that from limited observation and from the knowledge of the Geologist and Mr. Greene all residences outside the communities of Atlantique, Cherry Grove, Corneille Estates, Davis Park west of Brookhaven Town Park, Dunewood, Fair Harbor, Fire Island Pines, Fire Island Summer Club, Kismet (Lighthouse Shores) Kismet Park, Seaboy Beach, Loneyville, Ocean Beach Park, Point O'Woods, Robbins Rest, Saltaire, Seaview and Water Island, receive their water supply from shallow depth drive points wells. The towns receive their water supplies from wells varying in depth between 400 feet to 600 feet. Enclosed are two plans which graphically illustrate the location of all wells on the Island in 1963. The plans were extracted from a Geological Survey Professional Paper 483-I titled "Correlation and Foraminifera of the Monmouth Group (Upper Cretaceous) Long Island, New York." No contact was made with the town officials for water supply information.

Some deeper wells on Government land are:

SMITH POINT: 6" well with a 2" suction pipe. Located in a circular pit 6 feet in diameter and about 3 feet deep. Depth 359-374 feet artesian flow of 21 gpm at grade. It has been estimated that 100-150 gpm could be pumped by Geologist Perlmutter (letter to Richard Ketcham, dated January 17, 1967). Visible signs of high iron concentration from the ground stains in the immediate vicinity of the outlet was noted.

TALISMAN AREA: 6" well with 2" feed line. Water is pumped to a 3,000 gallon pressure tank and then distributed throughout Government facilities. This well is located about 500 feet west of where the present well is being drilled for the same area. Artesian flow - no flow measurements taken. The well is housed in a rectangular enclosure measuring about 3 x 5 feet, and 6 feet deep.

Other wells located on Government land which is reported in the master plan for the area but not visited on this trip are located at Moriches Inlet and at Watch Hill.

PURPOSE 3. DEVELOPMENT AND WATER DEMAND (OFFICE STUDY)

According to the master plan the following areas are planned for development. (See enclosure for type of facilities.) Construction, as reflected in the Long Range Program Schedule 1967-1977 - April 1967, Edition, is scheduled as follows:

<u>Area</u>	<u>R & T</u>	<u>B & U</u>
Watch Hill	1967	1969 & 1971
Sailors Haven	1967 & 1971	1968 & 1969; 1971
Smith Point West	1968, 1970 & 1971	1970 & 1971
Pattersquash	1971	1972
Whale House Point	1971 & 1972	1967 & 1973
East Lead	1971 & 1972	1974
Smith Point East	1973 & 1974	1975
Talisman Area	1972	1975
Pelican	1972	1976
Long Cove	1972 & 1973	1973
Moriches Inlet	1973	1976
William Floyd Estate		1974

WATER DEMANDS: As reflected in the enclosed memorandum from Chief, Design and Construction, FSC, Reese Smith's memorandum of November 15, 1967, to Chief, Office of Land and Water Rights, WSC, the water demand estimated for the following areas are:

Watch Hill	40,000 gpd
Sailors Haven	40,000 gpd
Smith Point West	Minimum

As related by Mr. Greene the Watch Hill complex may possibly receive its water supply from the Davis Park complex. E-log and well data are enclosed for the well drilled at Davis Park.

Estimated water demands for other sites are not available at this time. However, because of the similarity in the types of facilities to be provided in all areas, we can assume for the present that water demand will be at least comparable with the demand of Sailors Haven of 40,000 gpd.

WATER RIGHTS ACQUISITION PROGRAM (14X1035 -093:212782): Allowing for a two year lead time for test well drilling operations to begin before B & U construction begins, it appears that as presently reflected in the Long Range Planning Schedule (1967 - 1977 F.Y.) - April 1967, Edition, our Long Range Program should read as follows:

<u>Fiscal Year</u>	<u>Area</u>	<u>U.S.G.S.*</u>	<u>Contract*</u>
1970	Pattersquash	\$3,000	\$23,100
1971	Long Cove	3,000	24,000
1972	East Lead	3,000	24,900
	William Floyd Estate	3,000	24,900
1973	Smith Point East	3,000	25,900
1974	Moriches Inlet	3,000	27,000
	Pelican	3,000	27,000
	Totals	\$21,000	\$176,800

*U.S. Geological Survey estimated costs based upon present cost of \$2,500 each plus \$500 increase in costs of personal services and supporting costs.

*Estimated contract costs is based upon cost of Sailors Haven well, 1967 F.Y. (\$21,300) plus approximately 4% increase in cost for each year as estimated by Engineering News Record Cost Indexes.

In addition to the above Superintendent Schmidt in his memorandum of February 8, 1967, to this office, mentioned that test well drilling should be included for Sunken Forest and Greenberg Property. If the Superintendent is still planning to supply water to these two areas, the total cost reflected should be increased to \$27,000 for the U.S. Geological Survey and to \$226,600 for the test well drilling construction costs (use 1972 F.Y. figures). Grand Total - \$253,600.

CONCLUSIONS AND RECOMMENDATIONS

The unit price for drilling a test well is between three and four times the cost of drilling a similar test well in other areas administered by this office. The high cost of labor and the difficulty of transporting equipment and material to the drilling site is probably responsible for the cost. In keeping with the President's policy of lowering operating and construction costs the following is recommended by this office.

1. That the Service explore the possibilities of tying in the Government owned water distribution system with a municipal owned system where ever possible and where it has been proven that such a union will result in monetary savings to the Government.
2. That a joint effort between members of the Seashore Staff and this office conduct an inventory of all deep wells located on Government owned land of the Island.
3. That as a result of recommendation No. 2, that all water from wells be chemically analyzed and that a test pumping program be initiated for yield and drawdown on all wells which may be incorporated into the water distribution for a developed area.
4. That based upon the results of recommendations Nos. 1 and 3, the Government postpone the drilling of any wells for any developed area where the conditions of recommendation No. 1 is satisfied or where by the investigation of recommendation No. 3 an existing well will provide an adequate supply of water for a developed area.

It may be interesting to note that under Change Order #1, executed under the expressed authority of Contract #14-10-5-615-86, awarded to Mathies Well and Pump Company, Inc., of Lindenhurst, New York, an existing well at Smith Point West was tested for yield and drawdown at a cost to the Government of \$890.00. The same contractor had drilled a well at Sailors Haven for a total cost of \$21,310.00. The Government probably realized a savings of \$20,420.00.

The undersigned left Fire Island on October 26 at 5:00 p.m. and was trapped by a traffic "jam" on the way to the airport. Arrived at LaGuardia 5 minutes after the plane took off. The undersigned was reduced to the level of a babbling idiot because of heavy traffic.

Comments on the report are invited from all offices receiving a copy.

/s/ Garland Moore

Garland Moore

Enclosures

cc:

Regional Director, Northeast w/c encl.

Superintendent, Fire Island w/c encl.

Chief, PSC - D&C w/c encl.

PSC-Project Control - Attn: Mr. Longworth w/c encl.

Chief, Branch of Water Resources w/c encl.



MATHIES WELL & PUMP CO., INC.

WATER WELLS • SPECIALIZED DRILLING • WATER WELL SYSTEM MAINTENANCE

333 WEST HOFFMAN AVENUE • LINDENHURST, L. I., N. Y. • ESTABLISHED 1926 • 516 • 884-2300

13 November 1967

U. S. Department of the Interior
National Park Service
Fire Island National Seashore
P. O. Box 229
Patchogue, New York 11772

ATTN: Mr. Thomas F. Norris, Jr.
Acting Superintendent
(Contracting Officer)

SUBJ: CONTRACT NO. 14-10-5-615-93
TEST WELL AT TALISMAN AREA

Gentlemen:

Enclosed for your information and records is one (1)
copy of Well Log (WRC #S-31113T) for the subject project.

Within the near future, we will file the completion
report to the New York State Water Resources Commission on the
basis that the well at Talisman Area is a permanent well to
be used for observation purposes only. Removal of water from
this well requires a permanent permit from them and same should
be obtained by you, since we are not providing the pumping
equipment for the well.

In order to take more than 45 gallons per minute from
this well, this permission granted must come from Albany and
a public hearing is required. The Water Resources Commission
in Westbury will be most helpful in furnishing any additional
information along these lines.

Very truly yours,

MATHIES WELL & PUMP CO., INC.

Richard L. Shockley
Richard L. Shockley

RLS/cwm
Encl - 1

13 November 1967

FIRE ISLAND NATIONAL SEASHORE

NOV 15 1967

INTO ACTION

SUPERINTENDENT	
SECRETARY	
CHIEF ENGINEER	
ADVISOR	
ADMINISTRATIVE ASSISTANT	
LABORATORY ASSISTANT	
RECORDS	
TRAINING	
ACQUISITION ENGINEER	
AP SYSTEM	

SUPPLY WELL LOG

MATHIES WELL & PUMP CO., INC.
LINDENHURST, N. Y. 11757

Job NATIONAL SEASHORE, TALISMAN Address FIRE ISLAND

Date Started - Completed - Driller W. SIEBERT

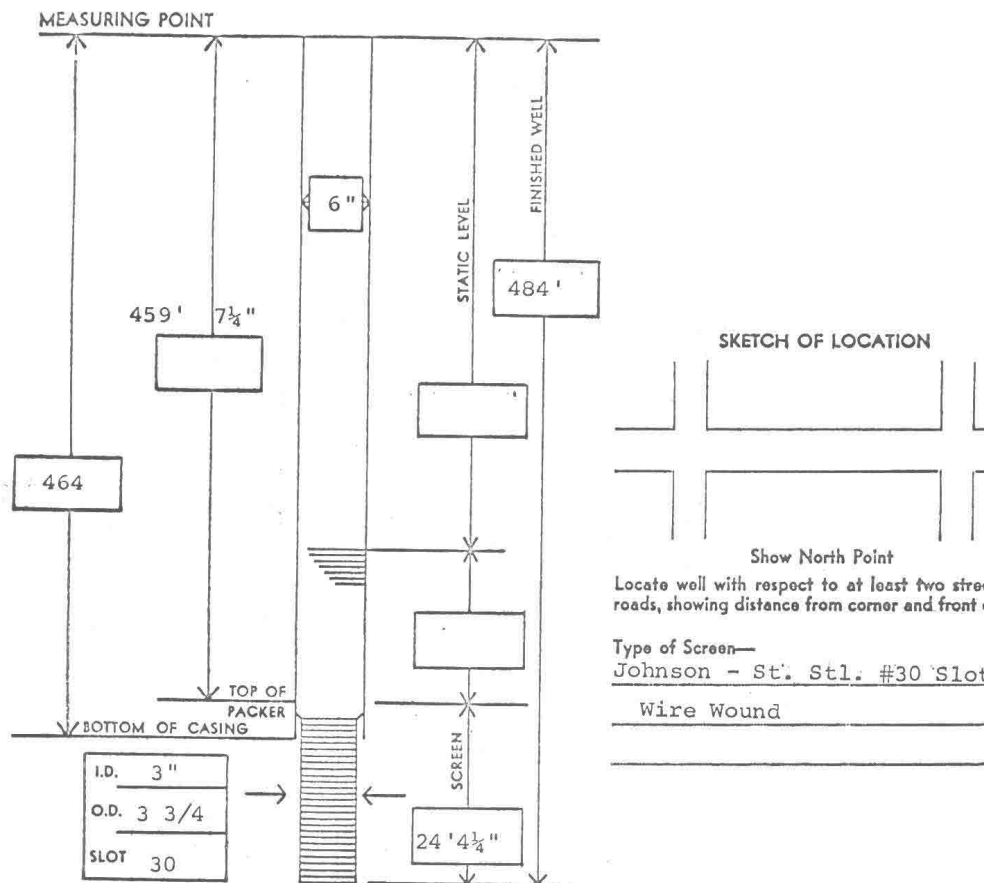
Diameter 6 " In. Measured from Grade ☒ Yes ☐ No

Depth 484 ' Ft. 0 " In. Above - Ft. In. Below - Ft.

Static Level + 11 ' Ft. 0 " In. Elevation - Ft.

ABOVE GRADE

	STRATUM		TEMPER
	THICKNESS	DEPTH	
Sand Grits, Shell & Gravel	132	132	
Green Sand, Clay & Grits	35	167	
Black Sand, Clay layers, & Shells	15	182	
Black Clay, some Sand Streaks	12	194	
Silt Mica, fine sand & clay	9	203	
Solid Clay	16	219	
Clay Silt Mica & Fine Sand	68	287	
Very Hard Compacted Silt & Clay	19	306	
Black Sand Mica & Clay Streaks	15	321	
Solid Black Clay	26	347	
Black Clay & Sand Streaks	5	352	
Sand fine with Clay Streaks & Mica	21	373	
Grey Sand Fine to Medium	1	374	
Black Clay & Lignite	39	413	
Clay, Lignite, Mica & Fine Sand	5	418	
Solid Clay & Lignite	1	419	
Clay, Lignite, & Mica (Very Hard)	5	424	
Fine Sand, Lignite, Mica & Streaks of Clay	2	426	
Fine to Medium Sand	3	429	
Fine Sand, Silt, Lignite & Steaks of Clay	35	464	
Medium to Coarse Sand, some Lignite	16	480	
Medium to Fine Sand, come Clay Streaks	6	486	
Fine Silt, Sand, Mica & Lignite	1	487	
Fine to Medium Sand, Mica & Lignite	13	500	
Black Clay, Fine Sand, Mica & Lignite	8	508	



NOTE— If outer casings are used state diameter, length and whether or not left in the ground.

NOTE— If screen is finished off with riser, give exact description of top of riser—(size and male or female thread.)

REMARKS— 5" Riser Used

October 6, 1967

154-OLW

Memorandum

To: Chief, Office of Land and Water Rights, WSC
Attention: Mr. Ketcham

From: Chief, Branch of Water Resources

Subject: Application for permit from State for wells at Fire Island

Please refer to your letter of October 5 to the New York State Department of Conservation on the above subject.

To my knowledge, this is the first time the Park Service has applied for a permit in New York State. Although the Service has authority to make such application this action is permissive and not mandatory. Because this is a precedent, the matter should be discussed with the Solicitor's Office before any formal application is made.

When the forms are received, it is suggested that they be filled out and together with all other pertinent material, made into a package for the Solicitor's information. The matter can be discussed with the Associate Solicitor for Parks informally and, if desirable, a formal memorandum requesting his advice can be prepared later.

(signed)

E. W. Reed

cc:
Mr. Reed - OLWW

EWReed:ljc

700-10-3-47

L54 WSC-OLW

October 5, 1967

New York State Department of Conservation
Water Resources commission
373 Maple Avenue
Westbury, New York 11590

Dear Sirs:

Our National Seashore Superintendent at Fire Island has advised us that use of a recently drilled well in his area is contingent upon application to your commission for a permit. We have in our files an information circular and one on rules and regulations as a guide, but it would appear from sample applications shown that you would provide pertinent forms for such an application upon request. This letter requests a nominal supply of 10 or 15 copies of these forms and any pertinent data that will serve to aid this agency to make a proper application to use groundwater from a successful test well in the aforementioned park area.

Sincerely yours,

~~Richard L. Stanton~~

Richard L. Stanton
Chief, Office of Land
and Water Rights, WSC

cc:
WASO, Mr. Reed
OLW
OLW (Water Rights) Corres.

RWKetcham:mf 10/5/67

Maps and Miscellaneous Information

Number of Documents in Docket	30		
Documents Dated from	10/5/1967	to	1/18/1968
Docket Compiled:	3/10/2011		