

JOHN A. DRON
Box 25A, Gridley Rd.
OJAI, CALIFORNIA

March 10
1 9 5 4

251.
768

Mr John Speilman
Engineer of Dams
Division of Water Resources
Los Angeles Cal.

Dear John:

At long last I have finished the " as built" plans of the Meiners Oaks Reservoir, and I send you a copy. Will you look it over and return it with any comments, so I can change it before making the two final process tracings as required by the Department.

I also enclose a plan for an intake tower on the dam, which I think is more practible than the concrete tower previously contemplated. The District is anxious to erect this before the season is too far advanced, Does it require a formal approval by the State ? Please let me know at the earliest as they want to let bids in a week or ten days.

With the highest regard, I am,

Yours sincerely

John A. Dron

JAD.

RECEIVED

MAR 1 1954

STATE DEPT. OF PUBLIC WORKS
Division of Water Resources
LOS ANGELES OFFICE

December 15, 1953

Mr. Verne Young, Acting Manager
Meiners Oaks County Water District
Route 3, Box 492 A
Ojai, California

SUBJECT: Meiners Oaks Dam,
No. 768

Dear Mr. Young:

Your attention is called to the State Engineer's letter of July 16, 1952 requesting the submission of a notarized statement of actual cost of construction of Meiners Oaks dam and final tracings depicting the dam as actually constructed.

The cost statement should be accompanied by a breakdown in sufficient detail to enable this department to determine that all pertinent items have been included. Affidavit forms for your use are enclosed.

Your early attention to this matter will be appreciated.

Very truly yours,
A. D. EDMONSTON, STATE ENGINEER

By DEC 15 '53 W.A.B.

W. A. Brown
Principal Engineer of Dams

WAB:AW

cc: Mr. John A. Dron
Gridley Road
Ojai, California

Mr. J. V. Spielman
Los Angeles Office

Enclosures

MEMORANDUM TO MR. W. A. BROWN

Meiners Oaks Dam No. 768

Inspection and Conference December 10, 1953

By J. V. Spielman

Inspection was with Mr. Young.

The reservoir was practically empty but there is a small pond of dead storage below the outlet level. Mr. Young intends to fill in this dead storage area to facilitate cleaning out water growths each year.

There were a few gopher holes at the crest. Mr. Young said he had been trying to exterminate the rodents. Other than this the dam is in satisfactory condition.

On September 16, 1953, the writer reported that it was the intention to build an outlet tower and he informed Mr. Young that it could be done under the existing application. However, this would entail paying an additional fee on the cost of the tower, whereas, if the present application is closed by getting the original construction approved, then an alteration application can be submitted and the work done without paying a fee on the cost. Mr. Young stated, therefore, that he would submit drawings and cost statement in order to get the dam approved.

JVS:ic
12-22-53

JVS

DEC 22 1953

RECEIVED
DIVISION OF WATER RESOURCES
NOV 10 1953

DEC 29 1953 W.A.B.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

MEMORANDUM

19
73727 1-73 15M SPO
2 Brown
HWR
DSCTO Mr. W. A. Brown - SACTO.DATE September 16, 1953FROM J. E. LeySUBJECT Meiners Oaks Dam No. 768

Mr. Spielman and the writer stopped at the Water District Office on September 15, 1953 and saw Mrs. Young, Secretary, concerning approval of the subject dam.

For approval the Water District must comply with the following:

1. Submit completed itemized cost statement
2. Submit as constructed tracings.

Mrs. Young stated that to improve the quality of water by selection they were going to construct a new outlet to enable them to take water off at different elevations. Mr. Spielman informed her that since the dam has never been approved and therefore the construction application is still open the work should be done under the present application; however, drawings of this proposed additional work must be submitted and approved by the State before commencing work.

JEL:ic

JEL
Assistant Civil Engineer

SEP 18 '53 W.A.E.

SEP 18 '53 I.W.K.

SEP 22 '53 D.S.C.

Mr. W. A. Brown

September 16, 1953

J. E. Ley

Meiners Oaks Dam No. 768

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JEL:ic

Assistant Civil Engineer

From Mrs Young -

Contract Cost -	14802.26
Steel liner	509.85
Freight	54.98
Grouting	302.70
	<hr/>
	15669.79
Eng Fee	544.18
	<hr/>
Total	16213.97

Lower 1886.97

July 16, 1952

Mr. Verne Young, Acting Manager
Meiners Oaks County Water District
Route 3, Box 492 A
Ojai, California

SUBJECT: Meiners Oaks Dam No. 768

Dear Mr. Young:

Your attention is called to the procedural requirements of this office leading toward the issuance of a certificate of approval of the Meiners Oaks Dam. These are:

1. The submission of a notarized statement of the actual cost of the dam as constructed and the payment of any further fee which may be due in the event the actual cost exceeded the estimated cost by more than 10%.
2. Final tracings on linen of the dam as actually constructed.

The notarized statement of cost need not be accompanied by the additional fee, if one is due, but this office will compute any additional fee due based upon your final cost and inform you of the amount of such fee. It is believed a copy of the Rules and Regulations of this office were left with Mrs. Young on July 14, 1952, which explain in detail the foregoing requirements. Two copies of our affidavit form No. 212 are enclosed for your convenience.

Very truly yours,

A. D. EDMONSTON, STATE ENGINEER

By _____
W. A. Brown
Supervising Engineer of Dams

cc Mr. John A. Dron
Gridley Road
Ojai, California

Los Angeles Office

JUL 16 '52 W.A.B.

WAB:STH

W.H.H. JUL 17 1952

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

LA Office

MEMORANDUM

TO Mr. J. E. Ley

DATE July 16, 1952

FROM W. A. Brown

SUBJECT Meiners Oaks Dam No. 768

Reference is made to your memorandum of July 14, 1952.

The letter of October 24, 1950, from Mr. Dron can probably be considered adequate as notice of completion of subject dam although it is realized the dam lacked certain minor items to be really complete. However, any additional cost incurred in repairing the outlet pipe since that date, if paid for by the District, should be included in the statement of final cost.

John Spielman referred to the 12 inch board in the spillway in his memorandum of June 12, 1951. It would be well to again call to Mr. Young's attention that storage above the spillway lip is not permitted and that the board must be out of the spillway during the winter months. Your point is well taken on the grill in the spillway. It should be installed at the upstream end of the spillway, if at all.

A letter, as you requested, is being prepared for transmittal to Mr. Young with copy to Mr. Dron. A supply of cost statement affidavit forms is attached.

WAB

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

MEMORANDUM

TO Mr. W. H. HolmesDATE July 14, 1952FROM J. E. LeySUBJECT Meiners Oaks Dam No. 768

On June 19, 1952 I stopped at the water district office and saw Mr. V. Young, Acting Manager, and Mrs. Young, secretary. Later, unaccompanied, I made an inspection of the reservoir.

I mentioned that the completed drawings and cost statement had not been submitted yet and that this should be done in the near future. They will remind Mr. Dron about submitting the drawings, which he said on last December 24th would be completed in a few days. I explained about the completed cost statement to Mrs. Young and left her a copy of the rules and regulations. The only notification of completion has been a letter by Mr. Dron dated October 24, 1950 in which he requests a temporary permit to store water. Does this meet the requirements for notification of completion? Mr. Young said he had installed a grill in the spillway entrance to keep children out of the reservoir.

After this visit to the office, I made an unaccompanied inspection of the reservoir. The water surface was 8⁺ ft. below the spillway and there was no visible seepage. The grill Mr. Young mentioned was located on the downstream portal of the spillway. I believe it would be preferable on the upstream side since its present position would allow clogging without any way of clearing or racking during a high flow. However, with the fence around the reservoir, it is questionable if enough debris would enter the reservoir to clog this grill. A 3" x 12" board had been placed in the spillway. Shouldn't they request permission by application to do this and then for only certain months of the year? If this board is meant to serve only the purpose of keeping wave action from going over the spillway, does it change the requirements? Your comments concerning the flashboard and grill will be appreciated, then I can see them on my next trip up there and advise them of any necessary requirements in this regard.

To facilitate approval of this dam I feel that a letter from the State Engineer requesting the following items to be complied with might be helpful.

1. Submit a notice of completion (If letter dated October 24, 1950 from Mr. Dron does not suffice).
2. Submit complete itemized cost statement.
3. Submit tracings.

W.H.H. JUL 17 1952

Mr. W. H. Holmes

-2-

July 14, 1952

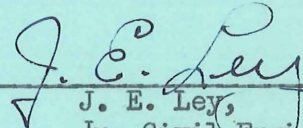
This letter should be addressed to:

Mr. Verne Young
Acting Manager
Meiners Oaks Company Water District
Route 3 - Box 492A
Ojai, California

and a copy sent to:

Mr. John A. Dron
Gridley Road
Ojai, California

Would you also please send me a few copies of cost statement affidavit Form 212.


J. E. Ley,
Jr. Civil Engineer

1025 205 12 137 1 02
W.H.H. JUL 17 1952



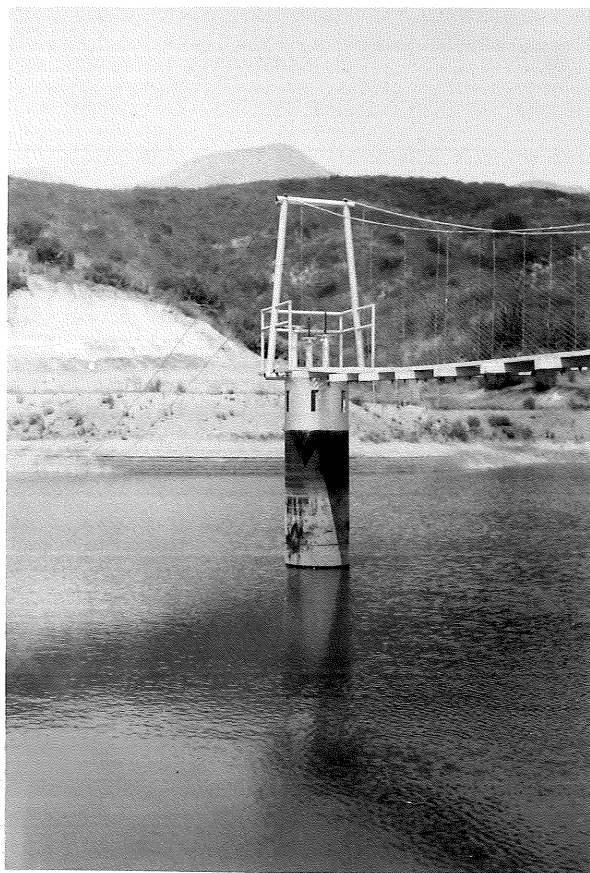
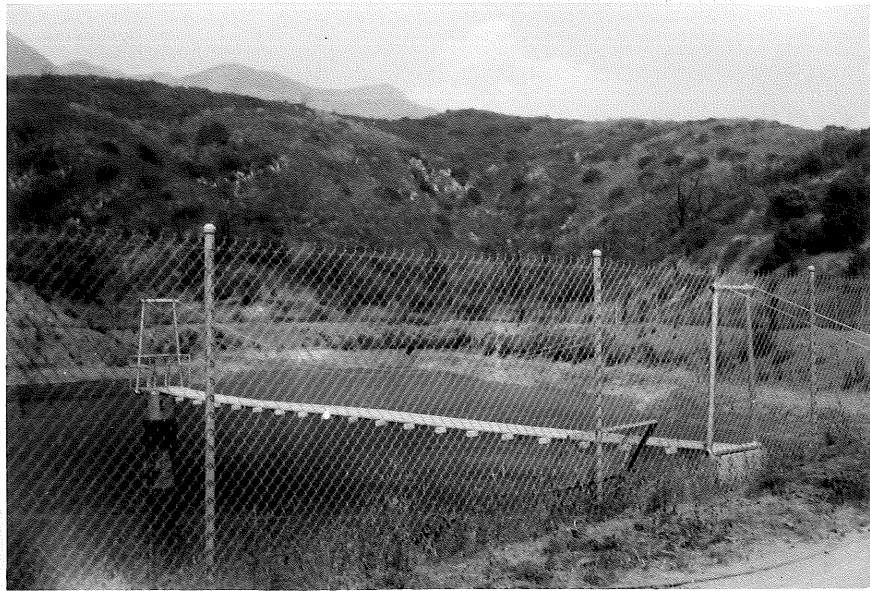
Picture looking upstream through
spillway showing grill over exit
portal.

W.H.H. JUL 17 1952

105 JUL 12 1952

RECEIVED
U.S. DEPT. OF AGRICULTURE
WASHINGTON, D.C.

Meiners Oaks Dam No. 768
6-19-52 J.E.L.



Recently constructed
outlet tower.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

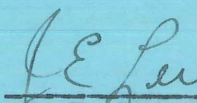
MEMORANDUM

TO Mr. W. H. HolmesDATE December 24, 1951FROM J. E. LeySUBJECT Meiners Oaks Dam No. 768

Mr. Spielman and the writer stopped at the water district office on December 19 and saw Mr. Dron, Consulting Engineer, Mr. Verne Young, Acting Manager, and Mrs. Young, Secretary.

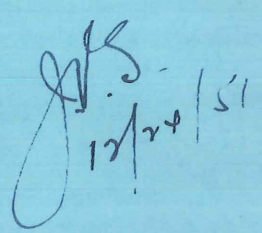
A discussion concerning the spacing of the outlet gate valve stem supports was brought up by Mr. Dron. Mr. Spielman, on a previous occasion, had pointed out that the spacing of 10' was too great and requested additional supports. In this discussion Mr. Dron upheld that the present spacing of 10' between supports was satisfactory as proven by present operation under a full head; this argument was substantiated by Mr. Young. Mr. Spielman pointed out that the L/r ratio was excessive and suggested a spacing of 5' and also, that the friction of the valve would increase with time, causing harder operation in the future. Mr. Dron did not fully concur with this reasoning so it was decided to leave it as constructed for the present, with a possibility of installing additional supports in the future if operations show them to be needed. According to the column formula calculations, the maximum span should be 5' using a gate friction factor of one, which is high.

Mr. Dron said the final drawings, for approval, would be completed in a few days and that prints would be sent to the Los Angeles Office and tracings to Sacramento.



J. E. Ley
Jr. Civil Engineer

JEL/ju


W.H.H. DEC 28 1951



From left abutment

137-77-13 W. 2 13

EXHIBIT NO. 10
DIA. DE AYER BEZOUCEZ
150

W.H.H. JUL 16 1951

MEINERS OAKS DAM NO. 768
June 12, 1951 JVS

~~W. H. Brown~~
File.

Memo to Mr. W. H. Holmes
Meiner's Oaks Dam No. 768
Inspections of Construction
By J. V. Spielman

Jan 2, 1951.

The writer stopped at the water district office and saw Mrs. Young, Secretary, who said that no work had yet been done towards repairing the cracked conduit.

Jan 17, 1951.

At dam the writer found that a steel liner pipe had been placed in the conduit. This is a 12" steel pipe of about 3/16" plate. A workman was welding the connection to the 16" gate at the upstream end.

At the water district office I met Mrs Young, secretary, and Mr. Young, maintenance foreman. They told me that one of the district board members, Mr. McAtee, was an official of the Shell Co., having to do with oil well grouting, and he would supervise the grouting of the space around the steel liner. This was to be contracted with an oil well grouting firm.

Feb 13, 1951.

This inspection was with Mr. W. H. Holmes. The job on the pipe line had apparently been completed as the reservoir water surface (at gage 4' - 4") was over the outlet valve.

June 12, 1951.

Inspection was with Mr. Verne Young, Acting Manager, and Mr. Boorse, newly appointed director. Water level was at 0.5' below spillway crest. A 12" plank about 4' long was wedged into the entrance to the spillway channel to increase the storage level but according to Mr. Young it was only to prevent loss in case of reservoir fluctuations and they did not intend to store above the spillway level. The plank would not reduce the maximum spillway flow capacity as it would not be the control except at low heads. ||

Mr. Young believes there is no more seepage from the outlet pipe since the steel liner was grouted in place but has had no way of determining if there was loss of water from the reservoir. No seepage has appeared below the dam. It was noted that the intermediate piers on the gate stem had not been installed which

W.H.H. JUN 20 1951

was called to Mr. Young's attention.

At the office a note was left, with Mrs. Young, for Mr. Dron advising him of the steps to be taken for obtaining final approval. Mr. Dron was also visited the next day at his home and the foregoing was discussed including request to install the gate stem piers as soon as the reservoir is drained. Due to running over estimated cost of the dam Mr. Dron would like to defer placing any wave protection coating on the upstream face. He was urged to do so before growth of plants gets started.

J.V.S.:mks —

6-18-51

JVS

JUN 21 '51 W.A.B.

W.H.H. JUN 20 1951

RECEIVED
DIVISION OF WATER RESOURCES
JUN 15 1951

27 November 1950

Board of Directors
Meiners Oaks County Water District
Ojai, California

RE: ROLLED EARTH DAM AND APPURTENANCES

Gentlemen:

Referring to your letter of November 22, signed by Mr. Joe Wingate, President, this will inform you that Payton Brothers, Contractors, are this date commencing repair of the leak in subject structure or conduit therefrom in accordance with the request contained in your said letter of November 22.

Payton Brothers do, however, hereby reserve the right to contest the question of responsibility for said leak and payment therefor until such time as all the facts of the matter are determined.

Yours very truly,

PAYTON BROTHERS

By

Ray K. Payton

COPIES TO:

William T. Selby
John A. Dron
Mr. Spielman

1950 DEC 1 PM 3 28

SACRAMENTO
DIV. OF WATER RESOURCES
RECEIVED

*copy made
for WTH*

FOR VICEPRES OFFICE
DIVISION OF WATER RESOURCES
STATE DEPARTMENT OF PUBLIC WORKS
NOV 28 1950
RECEIVED

FOR VICEPRES OFFICE
DIVISION OF WATER RESOURCES
STATE DEPARTMENT OF PUBLIC WORKS
NOV 28 1950
RECEIVED

27 November 1950

Board of Directors
Meiners Oaks County Water District
Ojai, California

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Yours very truly,

PAYTON BROTHERS

By/s/ Ray K. Payton

COPIES TO:
William T. Selby
John A. Dron
Mr. Spielman

(C O P Y)

W.J.H. DEC 29 1950

November 22, 1950

Payton Brothers, Contractors,
Ojai, California.

Subject: Leakage in outlet
conduit pipe.

Gentlemen:

As you are already aware, a serious leakage developed, apparently in the conduit beneath the Meiners Oaks Dam, on or about November 21, 1950, while the dam was partially filled with water.

We therefore call your attention to the provisions of Section 15 - Guarantee, of the Specifications, and request that you will proceed immediately with the repair of this defect, after consultation, and under the direction of our Engineer, Mr. John A. Dron.

Your very truly,

Joe Wingate. President.
Meiners Oaks County Water District

CC:

Mr. John A. Dron.
Mr. Wm. T. Selby, Atty.
Mr. John Spoilman, Sr. Hyd. Eng.
Div. Water Resources
State of Calif.

NOV 29 1950
MA 8 35

SACRAMENTO
DIV. OF WATER RESOURCES

RECEIVED

NOV 29 1950

NOV 29 1950

Rec 11/23/50 from
Mr. Dron. at dam -
JVS
W. 768

NOV 29 '50 W.A.B.

MEMORANDUM TO MR. W. H. HOLMES

Meiner's Oaks Dam No. 768

Inspections of Construction

By J. V. Spielman

November 27, 1950

The writer stopped at the dam on this day to see the condition of the outlet conduit which was to be exposed at the break. Excavation was being done with a drag line and two cracks in the conduit were uncovered about 12' in from the downstream toe. The cracks are 2.5' apart and are open 0.10" (upstream crack) and 0.05" (downstream crack) at the top of conduit and closed at the bottom, indicating that the downstream end of the concrete settled perhaps due to heavy equipment running over it.

December 12, 1950

The writer again stopped at the dam but found that no progress had been made in repairing the break, probably due to argument over responsibility between owner and contractor.

The excavation had drained and dried out and the writer noted that the foundation immediately under the conduit was soft. There may have been some loose soil in the bottom of the trench when the concrete was placed. The foundation is a soft shale rock.

December 18, 1950

Mr. Dron phoned the writer on December 13 that testing of the conduit would be done by December 18 and the writer visited the dam to see the results. The conduit between the cracks had been broken out and a bulkhead cemented in place. At the upstream end a steel plate bulkhead had been welded in place in the steel elbow. Water was supplied through a long hose from a tank above the dam. Measurement of flow was gaged at the tank and when the conduit was full the flow continued at about 10 g.p.m. with apparently very little backpressure in the conduit. It was decided that additional leaks were present and that a 12" diameter, 10 gage welded steel pipe would be installed in the conduit and the peripheral space grouted. The writer approved this procedure. Present were Directors of the District, Wingate and Bauer, Engineer Dron, and Contractors Ford and Payton.

JVS:TG
12-26-50

MEMORANDUM TO MR. W. H. HOLMES

Meiner's Oaks Dam No. 768

Inspections of Construction

By J. V. Spielman

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JVS:TG
12-26-50

J.V.S.

W.H.H. DEC 28 1950

Outlet pipe cracked 12' back from toe - 11-27-50
12" steel liner was grouted, finish of
the 16" concrete pipe outlet 12-18-50
Foundation for dist. portion of conduit
questionable 11-23-50

Spacing of outlet stem pier 10' c-c too great
should be 15' c-c

Layer of sand and gravel under dist. portion
of dam 6-16-50

JVS - Minimum fill density should be 115 pcf. 7-17-50

MEMORANDUM TO MR. W. H. HOLMES

Meiners Oaks Dam No. 768

Inspection Nov. 23, 1950

By J. V. Spielman

to At request (by phone) from Mr. Dron I stopped at the dam/see a leak which developed on November 21. Mr. Dron and his son Jack met me at the dam.

At time of this visit the reservoir water level was very low as Mr. Dron was pulling the reservoir down by use in the system. The leak was flowing about 10-15 g.p.m. of clear water from a point directly over the outlet conduit and had washed out a small crater. When the gate at the upstream end was closed the flow stopped immediately and a sucking sound could be heard of air being drawn into the conduit so that it was apparent that the leak in the conduit was close by. This is not the leak mentioned in my report of October 31. That leak was repaired and was just downstream from the present one. Our discussion was principally concerned with the quality of construction of the conduit and a means of testing it for determining if further bad spots are present. Mr. Dron said he was not present when concrete was placed in this downstream section of the conduit and it is apparent that a poor job was done.

The writer plans to visit the job on November 27 when Mr. Dron expects to have the conduit exposed at the leak.

JVS:TG
11-27-50

J.V.S.

NOV 29 1950

NOV 29 1950

NOV 29 1950

NOV 29 '50 W.A.B.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

MEMORANDUM

TO W.H. Holmes
FROM J.V. SpielmanDATE 11/3/50
SUBJECT Meiner's Oaks Dam
No 768

Referring to your memo of Oct 27
Mr Dron has ordered intermediate
gate stems ^{piers} to be constructed. Present
condition is that gate can be opened
but perhaps not closed tightly
under head. I believe it is
safe and recommend issuing a
temporary permit so they can
test out pipe line below the
dam.

J.V.S.

NOV 13 '50 W.A.B.

NOV 2 1950

NOV 9 1950

NOV 9 1950

*Brown
Files*

MEMORANDUM TO MR. W. H. HOLMES

Meiners Oaks Dam No. 768

Inspection of Construction Oct. 31, 1950

By J. V. Spielman

Some uncompacted waste stripping had been spread against the toe of the dam to a depth of several feet. The writer believed this loose fill might impede free drainage from the dam and requested that a drain trench be excavated along the toe with an outlet downstream and backfilled with sand and gravel from Ventura River, same as was used for the drainage layer under the embankment. This will be done except that the contractor may elect to use purchased screened gravel to fill the drain trench.

A bad leak developed in testing the outlet pipe. This was at the toe of the dam and just below the junction to the end of the conduit shown in picture of July 3, 1950. A steel tee was installed at this point with a short (cut) piece of concrete connecting pipe and all was imbedded in concrete. Apparently the bottom was not puddled and resulted in a honey comb mass which was being cut out at time of inspection.

Intermediate piers will be installed in the gate stem which will make the spacing about 5.5'.

Mr. Dron said the District was running short of money and might not be able to place erosion protection on the upstream face. The writer urged that at least one or two coats of sprayed asphalt be applied.

JVS:TG —
11-13-50

JVS

1120 NOV 12 AM 8 52
DIVISION OF WATER RESOURCES
EVALUATION
REC'D

W.H.H. NOV 16 1950



Completed embankment from left abutment.



Upstream face of dam.

W.H.H. NOV 10 1950

MEINERS OAKS DAM NO. 768
10-31-50 J.V.S.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

MEMORANDUM

TO Mr. J. V. Spielman
FROM W. H. Holmes

DATE October 27, 1950
SUBJECT Meiners Oaks Dam No. 768

W.H.H. OCT 27 1950

We have received your inspection memorandum of October 19, 1950, for the above dam. It is noted that you have requested additional supports for the stem of the outlet gate. We have also received from Mr. Dron a letter dated October 24, 1950, requesting a permit for temporary storage. Should we withhold issuing this permit until after the supports above referred to have been installed?

11/3
Advised OK to issue permit.
JVS

FOR VICEPRES OFFICE
DIVISION OF WATER RESOURCES
STATE DEPARTMENT OF PUBLIC WORKS

OCT 30 1950

RECEIVED

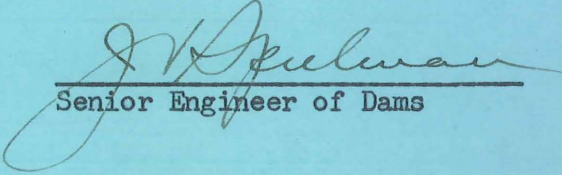
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

MEMORANDUM

TO Mr. W. H. HolmesDATE October 26, 1950FROM J. V. SpielmanSUBJECT Meiner's Oaks Dam
No. 768

I have received a copy of Mr. Dron's letter of October 24 requesting a temporary permit for storage. I do not believe that it is the intention to store water very soon as booster pumps which are planned have not yet been installed for supplying this reservoir. However, the spillway has been installed satisfactorily and will protect the dam so that I believe it is satisfactory to issue a permit.

JVS:H


Senior Engineer of Dams

MEINERS OAKS COUNTY WATER DISTRICT

TELEPHONE 2114
OJAI, CALIFORNIA

MAIL ADDRESS
RT. 3, BOX 492-A
OJAI, CALIFORNIA

BUSINESS ADDRESS
ARNAZ & MARICOPA HIGHWAY
MEINERS OAKS, CALIFORNIA

October 24, 1950

State of California,
Department of Public Works,
Division of Water Resources,
Sacramento, California.

Re: Application #768

Gentlemen:

The earth dam constructed under this approved application has been completed to the state where it may be filled with water.

We are therefore requesting that a temporary permit for storage be issued.

"As constructed" plans, record of tests, and affidavit of cost will be submitted in due course.

Yours very truly,


John A. Dron. District Engineer.

JAB/gy
C.C. Mr. Speilman

OCT 30 '50 W.A.B.

Shirley
Brown
Files

MEMORANDUM TO MR. W. H. HOLMES

Meiners Oaks Dam No. 768

Inspection of Construction Oct. 19, 1950

By J. V. Spielman

The concrete spillway structure through the dam has been completed. A trench was cut through the completed embankment and the concrete was placed against the excavated sides of the trench. The structure is on a foundation of soft sandstone.

The outlet gate stem was being installed and the stem is 7/8" diameter and not straight, having some bends at couplings. The supports are spaced about 11 feet apart so that the stem will easily buckle in compression.

Mr. Dron was located and advised that the spacing of the supports of the gate stem should be reduced by adding intermediate piers.

The gate is a Calco 16" diameter Model No. 104.

Mr. Dron has not made up his mind about the type of erosion protection to use on the face of the dam. He is considering 1 1/2" of reinforced gunite ^{or} and a spray coat of asphalt.

JVS:TG —
10-24-50

J.V.S.

W.H.H. OCT 26 1950

80 2 08
OCT 30 1950

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SACRAMENTO

OCT 30 '50 W.A.B.

MEMORANDUM TO W. H. HOLMES

Meiners Oaks Dam No. 768

Inspection of construction August 14, 1950

By J. V. Spielman

Inspection was with Mr. John Dron.

Placing of fill in the embankment is completed. The crest and slopes are quite full, the crest being about 20 feet wide. The slopes will be trimmed back to compacted soil.

Mr. Dron stated he would furnish this office with a tabulation of the results of the fill density tests.

There is considerable loose fill of waste stripping etc. at the toe of the dam. Mr. Dron said he intended to cut a ditch through this material away from the toe and down to the level of the original stream-bed. As there is no definite fill of boulders at the toe, as shown in Sec. C-C of Drwg. No. 3, the writer suggested that loose soil be removed at the toe to expose the sand drainage layer under the embankment and that a river gravel blanket be placed over the toe up to a height of 6 or 8 feet in order to stabilize the toe in case of seepage. Mr. Dron agreed to this.

Mr. Dron also agreed to place a tee in the outlet pipe at the toe and install an 8-inch gate for a blow-off on the tee.

JVS:H
8-21-50



1950 AUG 23 AM 8 14

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W.H.H. AUG 23 1950

AUG 24 '50 W.A.B.

MEMORANDUM TO MR. W. H. HOLMES

Meiner's Oaks Dam No. 768

Inspection of Construction July 26, 1950

By J. V. Spielman

When the writer arrived on the job about 11 a.m. the placing of fill was proceeding with no representative of the District present. Mr. Dron arrived after lunch and his son, Jack, made a fill density test, No. 15, at this time.

Elevation of the embankment was 896. or 14 feet below the crest.

The contractor was working one carryall, one tandem roller and the spring cultivator. The latter is a very useful piece of equipment. It is maneuvered very fast on the fill and mixes the soil so that very little water is ever needed to be added on the fill and moisture is quite uniform. One tandem roller was shut down due to tractor failure. The rollers have been increased to specification weight by adding about 2000 lbs. of steel scrap to each one. One piece of steel is an oil well bit.

The placing and rolling was better organized than at the last visit and the roller followed a regular pattern. The rolling was still weak at the corners and Mr. Dron had the downstream left corner which was low worked over while we were there.

Following are density tests to date:

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1950 JUL 31 PM 4 55

W.H.H. AUG 7 1950

<u>Date</u>	<u>No.</u>	<u>Location</u>	<u>Moisture</u>	<u>Density</u>
July 18	3	D.S. side	9.3%	105.0 p.c.f.
18	4	Axis at center	9.8%	122.0 "
18	5		10.7%	114.5 "
19	6	U.S. side	9.1%	111.0 "
19	7	" "	11.5%	112.0 "
19	8	D.S. in 3' trench	10.2%	112.0 "
19	9		?	110.0 "
20	10	D.S. in 5' trench	10.3%	122.6 "
20	11		10.0%	114.0 "
21	12		8.9%	120.0 "
21	13		8.0%	117.7 "
24	14		7.5%	118.5 "
26	15	El. 896 D.S. side (needle 800-1000)	12.5%	121.0 "

After the writer ordered fill removed on July 18, because of low densities, Mr. Dron made further tests and required about two feet of fill to be removed. He stated that below that depth it looked as satisfactory as that at test No. 10 made in the bottom of a 5 foot trench.

Since then placing has been rapid and densities more satisfactory, due to adding weight to the rollers and taking more care with moisture and placing thinner layers.

JVS:H
7-27-50

J.V.S.

The needle at location of Test 15 would indicate that density was less and moisture was greater than this test shows. This could be due to not completely drying of moisture sample.

J.V.S.

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 JUL 27 1950

W.H.H. AUG 7 1950

AUG 16 '50 W.A.B.



Views of embankment at elevation 896.

W.H.H. AUG 21 1950

Meiners Oaks Dam No. 768
7/26/50 J.V.S.

FIELD DENSITY

JOB *Meiners Oaks Dam*OPERATOR *J A Dron*TEST NO. *4*DATE *7/18/10*LOCATION *On axis near center*

REMARKS

DETERMINATION OF VOLUME OF HOLE

1. Wt. of sand and can
2. Wt. of can
3. Wt. of sand (1-2)
4. Vol. of can
5. Sand density (3 / 4)
6. Wt. after filling hole - sand and can
7. Wt. of sand used (1-6)
8. Vol. of sand used (7 / 5)
9. Vol. of hole in plate to deduct
10. Net vol. of hole in soil (8-9)

*17 # 2 oz.
14 oz.
16 - 4.**9 # 6 oz.
7 - 8**none used**17.125 p
0.875 p
16.250 p
0.186 c.f.
87.4 p.c.f.
9.375 p.
7.750 p.
0.0887 c.f.
0.0887 c.f.*DETERMINATION OF WET WT. OF SOIL

11. Wt. of wet soil and container
12. Wt. of container
13. Wt. of wet soil, net
14. Density wet soil ($\frac{13}{10}$)

*13 # 03 oz.
1 - 5
11 - 14**13.1875 p
1.3125 p
11.8750 p
134.0 p.c.f.*MOISTURE DETERMINATION

15. Wt. of wet soil and pan
16. Wt. pan
17. Wt. wet soil net
18. Wt. dry soil and pan
19. " " " net (18-16)
20. Wt. water removed (17-19) *or 15-18*
21. Proportion of water to dry wt. (20 / 19)

*13 # 3 oz.**12 2
1 5**13.1875 p
1.3125**12.125 p
10.8125
1.0625 p
9.83%*DRY DENSITY OF SOIL

22. Density (Item 14) / (Item 21 + 100%)

122.0 pcf



JVS

7-17-50

#768

*Sent to Lact. felis
from L.A. Jan '69*



Looking towards left abutment which is very soft sandstone which breaks down easily and forms a pervious sandy zone along abutment.



Closeup of sandy soil along left abutment which was later partly removed. (See Report).

W.H.H. AUG 21 1950

Meiners Oaks Dam No. 768
7/17/50 J.V.S.

Memo to Mr. W. H. Holmes

Meiners Oaks Dam No. 768
Inspections of Construction
By J. V. Spielman

June 16, 1950.

This inspection was with Mr. Dron, Mr. Joe Wingate, President of the District Board and Mr. Brandt, one of the contractors.

Stripping had been completed in the area downstream from the cutoff and the layer of sand and gravel had been placed and about 1.5' of fill placed over the drainage layer. I had Mr. Dron scrape off the fill and sand layer in a small area so I could see the foundation. This was a compact, tight soil and appeared to be satisfactory. Stripping in the cutoff trench and upper portions of the abutment was being placed in the fill and the top 6" of the fill was too dry and was ordered to be removed and moistened in the stockpile.

June 21, 1950.

The trench for the outlet pipe was being excavated. This was all in soft sandstone and was satisfactory. Where the pipe crosses the cutoff trench the grade of the pipe trench was made to meet the same level as the cutoff trench. Mr. Dron stated that the outlet for the entire length under the fill would be according to "Section D-D" on Dwg. No. 4, using plain concrete pipe encased in reinforced concrete. He stated that he found that this would be less expensive than using part reinforced pipe as was shown.

July 3, 1950.

There was very little activity at this inspection. The pipe encasement had been placed. Mr. Dron was unable to meet me but I talked to him later over the phone and we discussed compaction of fill over the pipe and particularly at the cutoff trench where a loose fill had been made and which will need to be removed. Also discussed doing a little more stripping in the upstream portion of the streambed and I approved his placing fill after completion of the above.

Mr. Dron phoned the office on July 12 when I was in San Diego and I returned his call on July 13. He stated he had started the fill but was unable to get over 110 p.c.f. dry density. He believed that was the maximum they could get. Said the fill seemed very hard and dense but also stated that contractor had been unable to get rollers of specified weight of 2,000 p.c.f. After discussing roller weight, amount and uniformity of moisture, number of roller trips, I suggested he reduce thickness of layers.

July 17-18, 1950.

This was the first chance I had to observe placing of embankment fill. The top of fill was about 8' above original streambed. I met Messrs. Brandt and Ford, Contractors, on the job but Mr. Dron had been called to Ventura and did not return until late in the afternoon of the 17th. Meanwhile the fill placing continued without the benefit of any district inspection or direction.

In general the soil moisture appeared to be about right and fairly uniform. A man used a hose to wet the abutments and fill when necessary, however, there was not close control and an inspection^{er} was needed. There were many roots in the more impervious soil and one man worked constantly and another part time at picking up roots. Two carryalls and two light tandem rollers were working. A spring tooth cultivator was working constantly to rake out roots and mix the soil. This machine did a lot of good particularly to aid in making the moisture uniform.

The rollers were obviously too light as they did not penetrate the fill. Also, they were of the non-oscillating tandem type. The rolling pattern was a puzzle although I was informed that each layer was getting 12 trips (16 were specified).

The upstream and downstream edges of the embankment sloped off and were not getting adequate compaction. At my request the contractors cut down both edges and then brought them up with horizontal layers. The corners which were low were also brought up. I pointed out later to Mr. Dron that the corners were not getting adequate compaction.

Along the left abutment the formation is a soft yellow sandstone. The tractors easily break it down into a loose sand which would make a very short and pervious path for seepage along the abutment. This was called to the contractor's attention who tried to remove the loose sand with a dozer but of course a complete job cannot be done by this means. It was later called to Mr. Dron's attention that a pervious layer was being left along the abutment. It should be dug out by hand if necessary and compaction close to the soft sandstone had better be done by hand. This was all thoroughly discussed with Mr. Dron.

Only two density tests had been recorded showing field densities of 108 and 107.5 p.c.f. although the specifications called for 119 p.c.f. Mr. Dron gave the writer the attached laboratory compaction test sheet on samples 3 and 4 made by Walter Loban. Sample 3 is apparently the material principally being used. Sample 4, according to Mr. Dron, is a very fine clayey silt which he thought suitable for the impervious section. Some of it may be getting mixed with the sandy soil. From Loban's test it would appear not to be a suitable soil. Mr. Loban's needle curve for sample 3 is an odd shape as was the original test submitted with the application. These tests indicated a required density of 118 or 119 p.c.f. for an I.S.P.R. of 300.

With borrowed equipment the writer proceeded to make a compaction test on the morning of July 18 and Mr. Dron made two more fill density tests. Results are all shown on attached copy of soil compaction test made by the writer.

From this the writer concluded and so stated to Mr. Dron and Mr. Ford that the minimum fill density should be 115 p.c.f. and that all existing fill below that density should be removed. Perhaps 1,000 or 2,000 cu. yds. of fill will need to be removed and recompacted. The writer also discussed with Mr. Dron that he should keep an inspector on the fill at all times, that

density tests should be made at least once a day and better procedure to obtain greater accuracy in the test. The writer also insisted that rollers meeting the weight specification be obtained. Mr. Dron gave orders to the contractor to comply with the specifications.

JVS:mmu
enclosures

J. V. S.

July 19, 1950

SOIL CHARACTERISTICS

[illegible]

MOISTURE % OF DRY WEIGHT

