February 4, 2010

Alan Solomon
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: **Palen Solar Power Project, Docket No. 09-AFC-7**
Responses to January 14, 2010 CEC Workshop Queries
Technical Areas:
Biological Resources
Cultural Resources

Dear Mr. Solomon:

During the January 14, 2010, CEC Workshop staff requested additional information and clarification on several matters in the technical areas of Biological Resources and Cultural Resources. Attached please find our responses to those specific questions.

If you have any questions on these data responses to the staff's workshop queries, please feel free to contact me directly.

Sincerely,

Alice Harron
Senior Director, Development

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STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of: **APPLICATION FOR CERTIFICATION** **for the *PALEN SOLAR POWER PROJECT***	**Docket No. 09-AFC-7** **PROOF OF SERVICE** ***(Revised 12/28/2009)***

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DECLARATION OF SERVICE

I, Carl Lindner, declare that on, February 4, 2010, I served and filed copies of the attached Palen Solar Power Project Data Response materials:

Data Responses to January 14, 2010 CEC Workshop Queries
Technical Areas: Biological Resources and Cultural Resources

The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[http://www.energy.ca.gov/sitingcases/solar_millennium_palen]

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)
For service to all other parties:

_____ sent electronically to all email addresses on the Proof of Service list;

__X__ by personal delivery or by overnight delivery service or depositing in the United States mail at Camarillo, California with postage or fees thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

__X__ sending an original paper copy and one electronic copy, mailed to the address below (preferred method);

OR

_____ depositing in the mail an original and 12 paper copies, along with 13 CDs, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-7
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Responses to CEC Workshop, January 14, 2010

Biological Resources

Palen Solar Power Project

Docket No. 09-AFC-7

Alice Harron
Senior Director of Project Development
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161

Data Response Queries – January 14, 2010

BIO-DR-: Requests from CEC Data Response Workshop 1/14/2010 regarding the Palen Solar Power Project

1) Comment: Is 3:1 slope sufficient for tortoise to enter and exit the channels?

Response: The side slopes for all channels and dissipaters for the project have been designed with 4:1 (horizontal:vertical) slopes. The channel slopes within the dissipaters and the stilling basin are anticipated to be 3:1 slopes. Based on AECOM's previous experiences with similar projects (i.e. Beacon Solar Energy Project) the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) have determined that the side slopes of 4:1 slope are sufficient for desert tortoise to enter and exit the channels. In addition, a 3:1 slope within the dissipater channels with side slopes of 4:1 slope will also be sufficient for desert tortoise to enter and exit these structures (Karl, Pers. Comm.).

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2) Comment: Discuss quantities of water that can be conserved using proposed mitigation.

Response: Mitigation is only required when an impact crosses a significance threshold. Because the proposed project would involve dry cooling and the analysis in the AFC showed that Project impacts to the storage in the Chuckwalla Valley Groundwater Basin would be insignificant, no additional mitigation is required (AFC 2009).

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3) Comment: Special-Status Plant Mitigation Plan: The Plan references off site mitigation. Where off site?

Response: The specific location of off-site mitigation is currently being determined in negotiation with CDFG, USFWS, and the Bureau of Land Management. Compensatory mitigation will be achieved through a combination of off-site land acquisition. Acquired land will be preserved and managed for the aquatic resource and species habitat values in perpetuity. Land acquisition options are being considered carefully and a preserve location will be chosen based on the following factors:

- Species occurrences and extant populations in the region;
- Key movement corridors that may connect already preserved habitats;
- Federal species recovery plans and critical habitat designation boundaries;
- Habitat quality;
- Presence of primary constituent habitat elements;
- Presence of desert washes;
- Enhancement opportunities;
- Other property constraints (i.e. mineral leases, cultural resources); and
- Long-term management feasibility.

Please see the Draft Special-Status Plant Mitigation Plan and the Preliminary Habitat Mitigation and Monitoring Plan for a discussion of land acquisition for off-site mitigation. These documents were included as part of the January 6, 2010 Data Response submittal.

4) Comment: Provide a map showing specific locations of translocation/relocation for WBO.

Response: As per the CEC Data Response Workshop on 1/14/2010, it has been confirmed that this figure is not necessary at this time. Due to the low density of burrowing owls present at the site, owls will be passively relocated from the site. Refer to the Burrowing Owl Relocation/Translocation Plan for a discussion of the relocation strategy.

Palen References:

AECOM. 2009a. Palen Solar Power Project Application for Certification. Prepared for Palen Solar I, LLC. August.

Karl, Alice. PhD Desert Tortoise Biologist. Personal Communication. 2009.

Responses to CEC Workshop Requests, January 14, 2010

Historic Maps and Aerial Photographs

Palen Solar Power Project

Docket No. 09-AFC-7

Alice Harron
Senior Director of Project Development
1625 Shattuck Avenue, Suite 270
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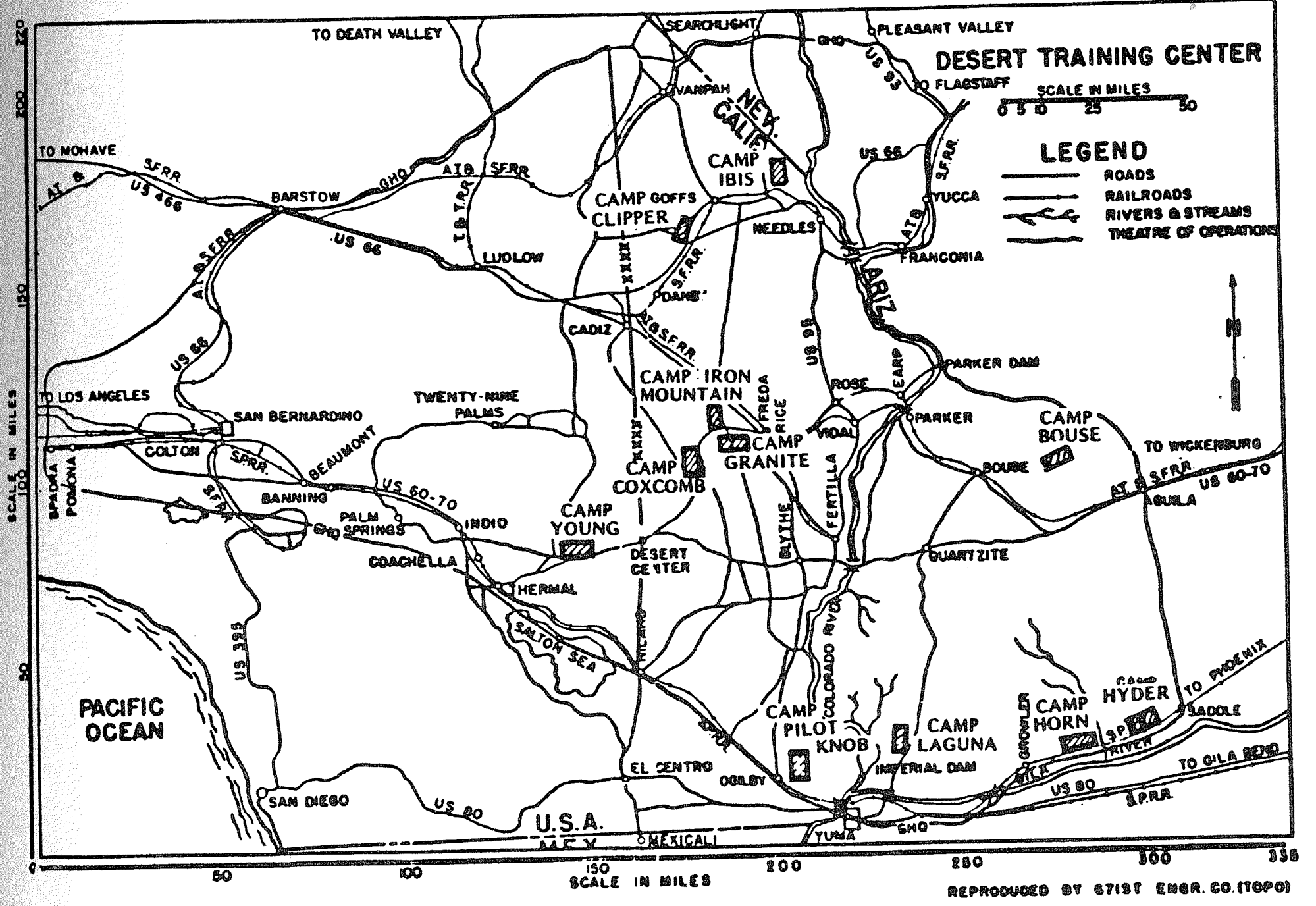
1942 Map of DTC


DESERT TRAINING CENTER
SCALE IN MILES
0 5 10 25 50
LEGEND
ROADS
RAILROADS
RIVERS & STREAMS
THEATRE OF OPERATIONS
TO DEATH VALLEY
SEARCHLIGHT
PLEASANT VALLEY
TO FLAGSTAFF
VANPAH
NEV.
CALIF.
CAMP IBIS
TO MOHAVE
BARSTOW
CAMP GOFFS
CLIPPER
NEEDLES
YUCCA
FRANCONIA
ARIZ.
LUDLOW
DAM
CADIZ
CAMP IRON MOUNTAIN
PARKER DAM
PARKER
TWENTY-NINE PALMS
SAN BERNARDINO
TO LOS ANGELES
COLTON
BEAUMONT
BANNING
CAMP COXCOMB
CAMP GRANITE
CAMP BOUSE
TO WICKENBURG
BOUSE
AGUILA
PALM SPRINGS
INDIO
CAMP YOUNG
DESERT CENTER
COACHELLA
HERMAL
QUARTZITE
SALTON SEA
PACIFIC OCEAN
CAMP PILOT KNOB
CAMP LAUNCA
CAMP HORN
CAMP HYDER
TO PHOENIX
SADDLE
EL CENTRO
OGILBY
IMPERIAL DAM
TO GILA BEND
SAN DIEGO
U.S.A.
MEX.
MEXICALI
YUMA
SCALE IN MILES
0 50 100 150 200 250 300 336
REPRODUCED BY 671ST ENGR. CO. (TOPO)

Chuckwalla Mountains Quadrangle
1943

DEPARTMENT
GINEERS, U. S. ARMY

FIRST EDITION-651 ENGR. I

RIVERSIDE COUNTY
CHUCKWALLA MTS. QUADRANGLE
GRID ZONE "F"

14° 15° 16° 17° 18°
20'

115°15' (PALEN MTS.)
33°45'

(COMB MTS.)

HIGHWAY

DAM

Gruendike Well W-300

Palen Dry Lake

500

VALLEY

BM N-132
840

60
70

GRANITE KNOB
889

BM K132
765

BM L-132
738

BLYTHE 39 MILES

1000

40'

Chuckwalla Mountains Quadrangle
1943-2

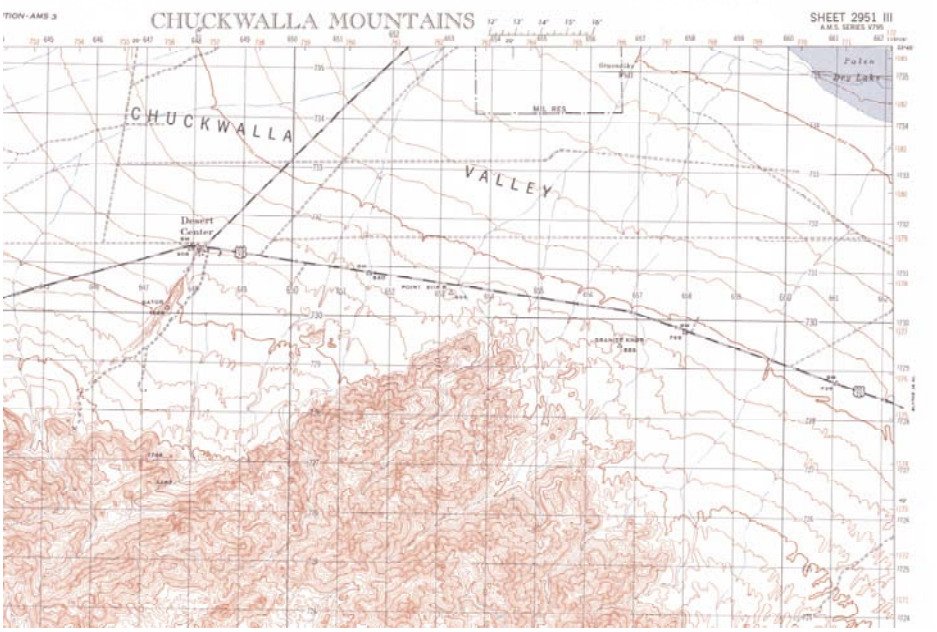
ESTRICTED

WAR DEPARTMENT
CORPS OF ENGINEERS, U. S. ARMY

FIRST EDITION-651 ENGR. I

RIVERSIDE COUNTY
CHUCKWALLA MTS. QUADRANGLE
GRID ZONE "F"

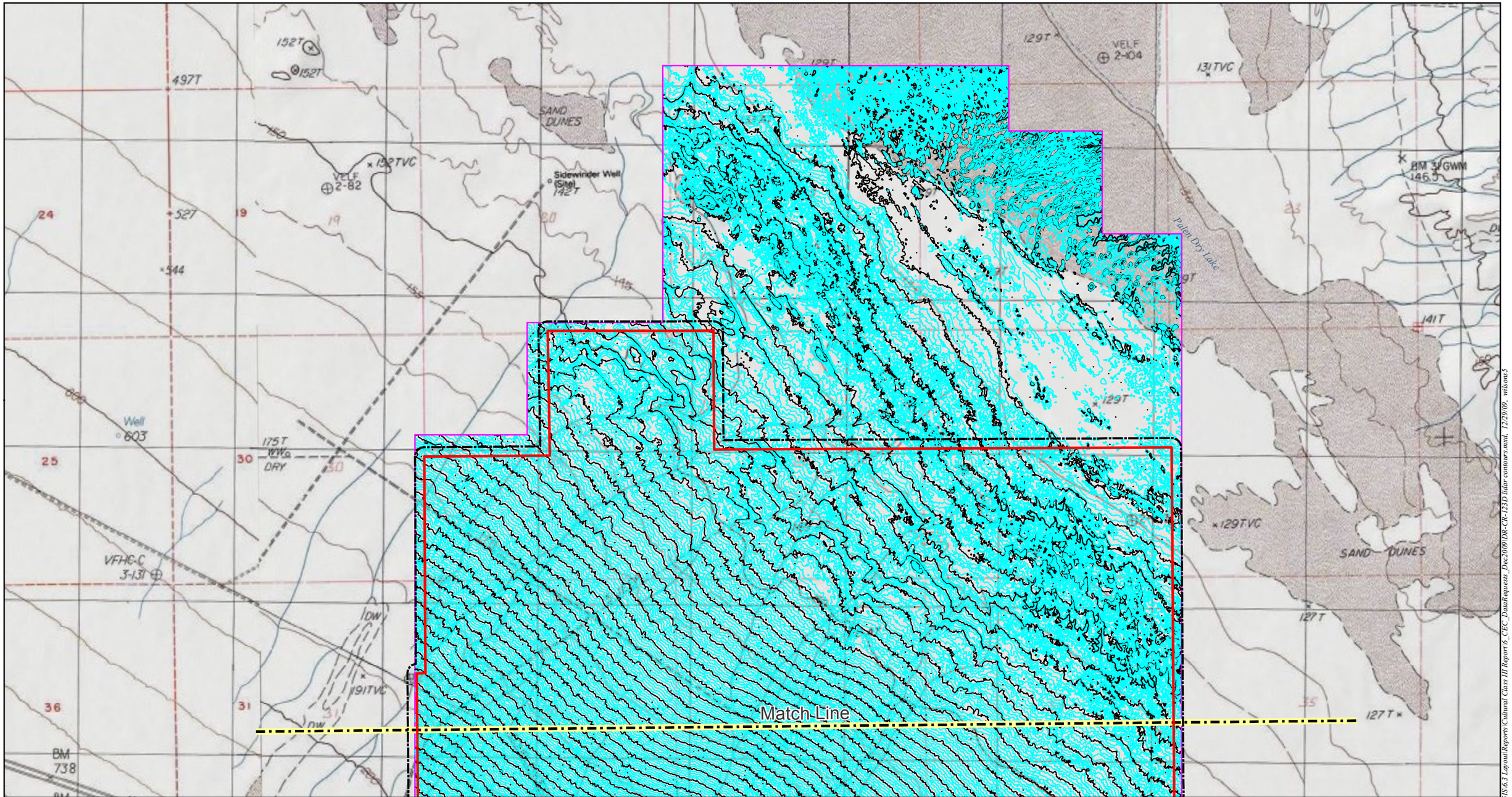
Chuckwalla Mountains Quadrangle
1947


CHUCKWALLA MOUNTAINS
SHEET 2951 III
A.M.S. SERIES V795
CHUCKWALLA
VALLEY
Desert Center
MIL RES
Dry Lake
730

Class III Cultural Resources Report for the Palen Solar Power Project

DR-CR-123D

Map 1 of 2



Map Location

Legend

- Area of Potential Effect (3,946 acres)
- CEC Buffers (Additional 338 acres)

Palen_Contours.dwg Polyline

- <all other values>

Cad Renderer

- CONTINUOUS, 1, 25
- CONTINUOUS, 4, 25
- CONTINUOUS, 7, 25
- CONTINUOUS, 6, 30

Source: USGS 7.5" Quadrangle Sidewinder Well (1983); AECOM 2009

N W E S

1 inch = 2,000 feet

0 2,000 4,000 Feet

Class III Cultural Resources Report for the Palen Solar Power Project

DR-CR-123D
Map 1 of 2
Palen LIDAR Contours

Solar Millennium

AECOM

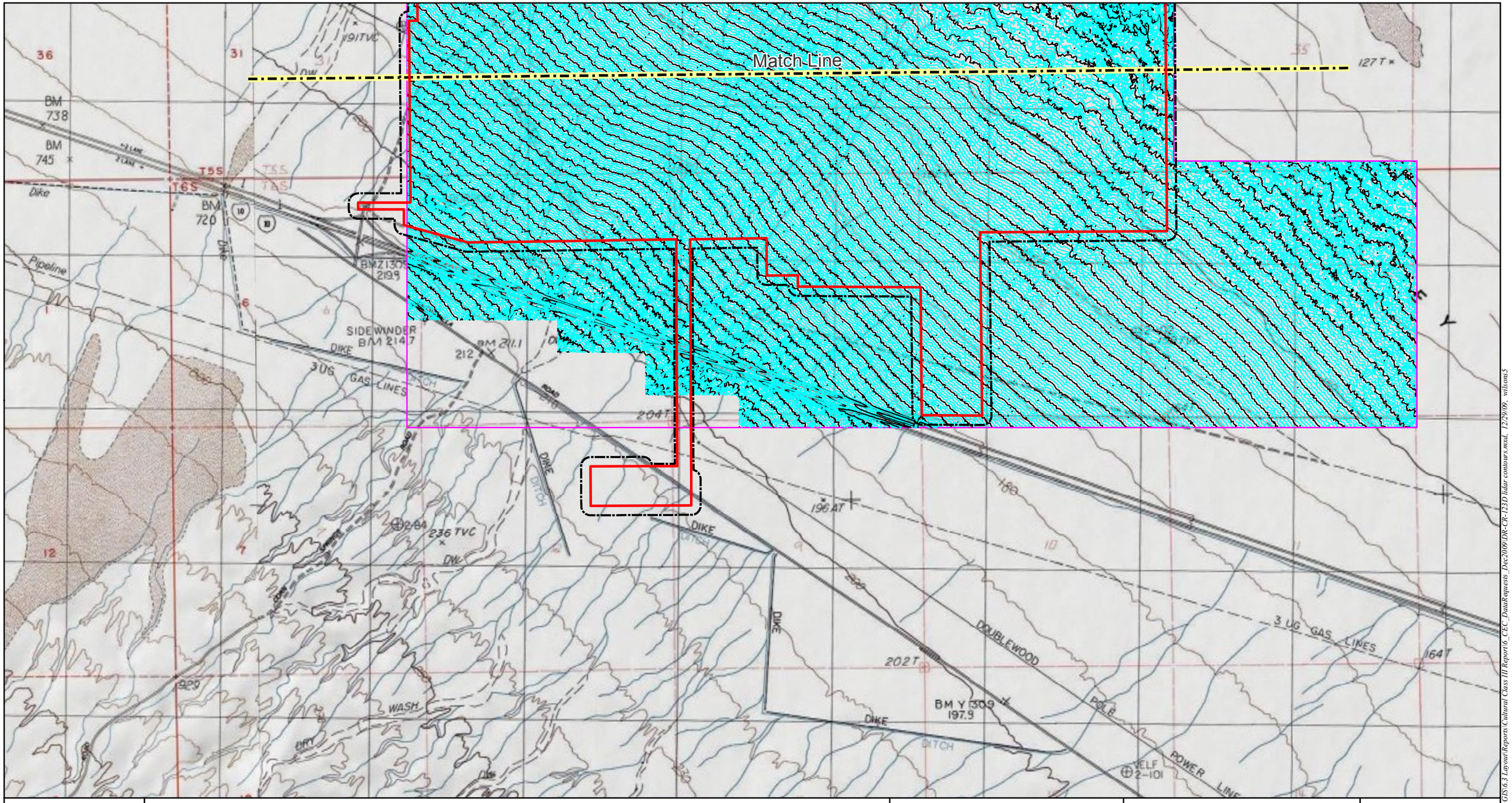
Date: December 2009

Path: P:\2009\09080087 Sol Mil Palen\6.0 GIS\6.3 Layout\Reports\Cultural Class III Report\6_CEC_DataRequests_Dec2009\DR-CR-123D lidar contours.mxd, 12/29/09, wilsons5

Class III Cultural Resources Report for the Palen Solar Power Project

DR-CR-123D

Map 2 of 2



Map Location

Legend

- Area of Potential Effect (3,946 acres)
- CEC Buffers (Additional 338 acres)

Palen_Contours.dwg Polyline

- <all other values>

Cad Renderer

- CONTINUOUS, 1, 25
- CONTINUOUS, 4, 25
- CONTINUOUS, 7, 25
- CONTINUOUS, 6, 30

Source: USGS 7.5" Quadrangle Sidewinder Well (1983); AECOM 2009

N W E S

1 inch = 2,000 feet

0 2,000 4,000 Feet

Class III Cultural Resources Report for the Palen Solar Power Project

DR-CR-123D
Map 2 of 2
Palen LIDAR Contours

Solar Millennium

AECOM

Date: December 2009

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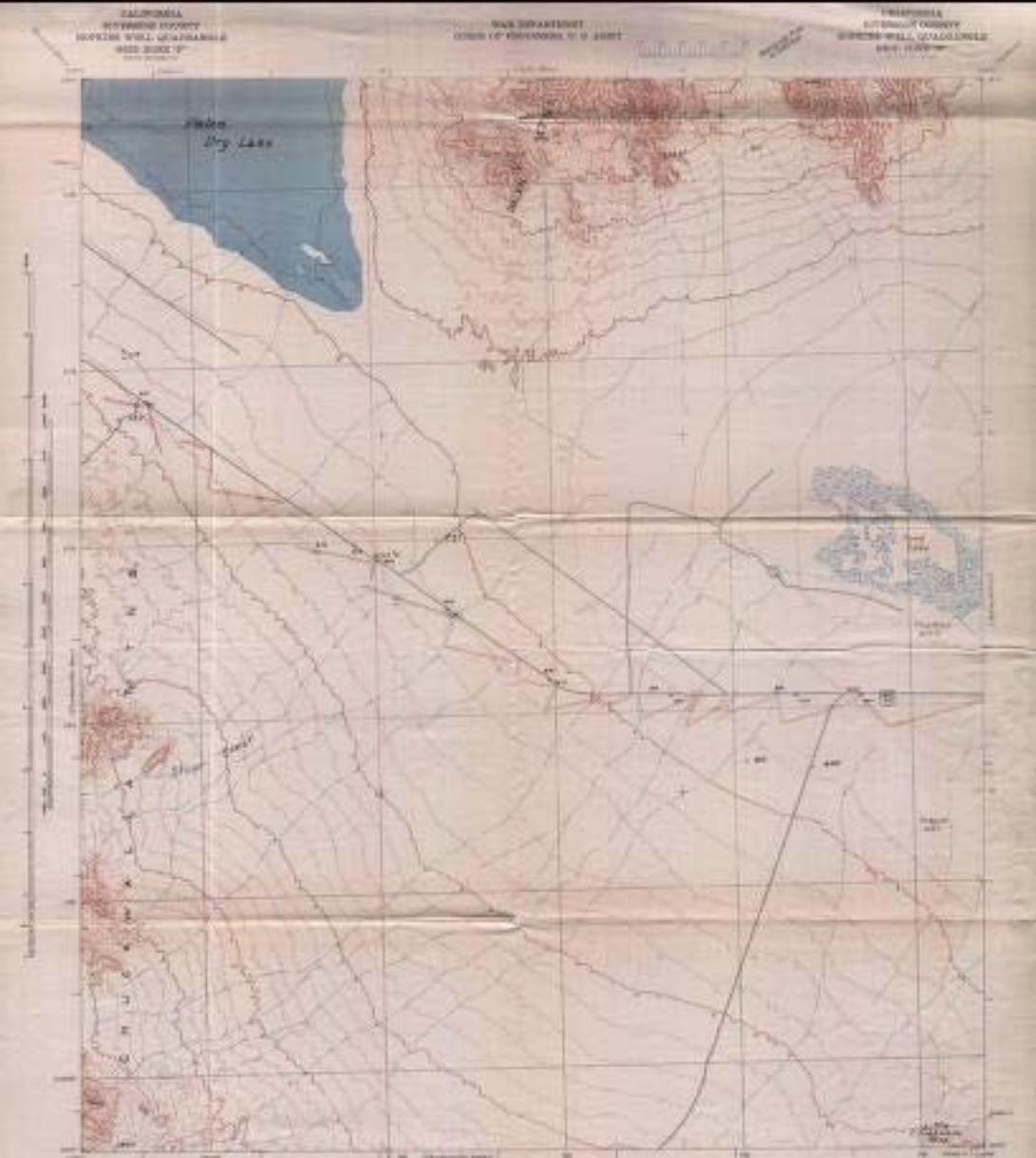
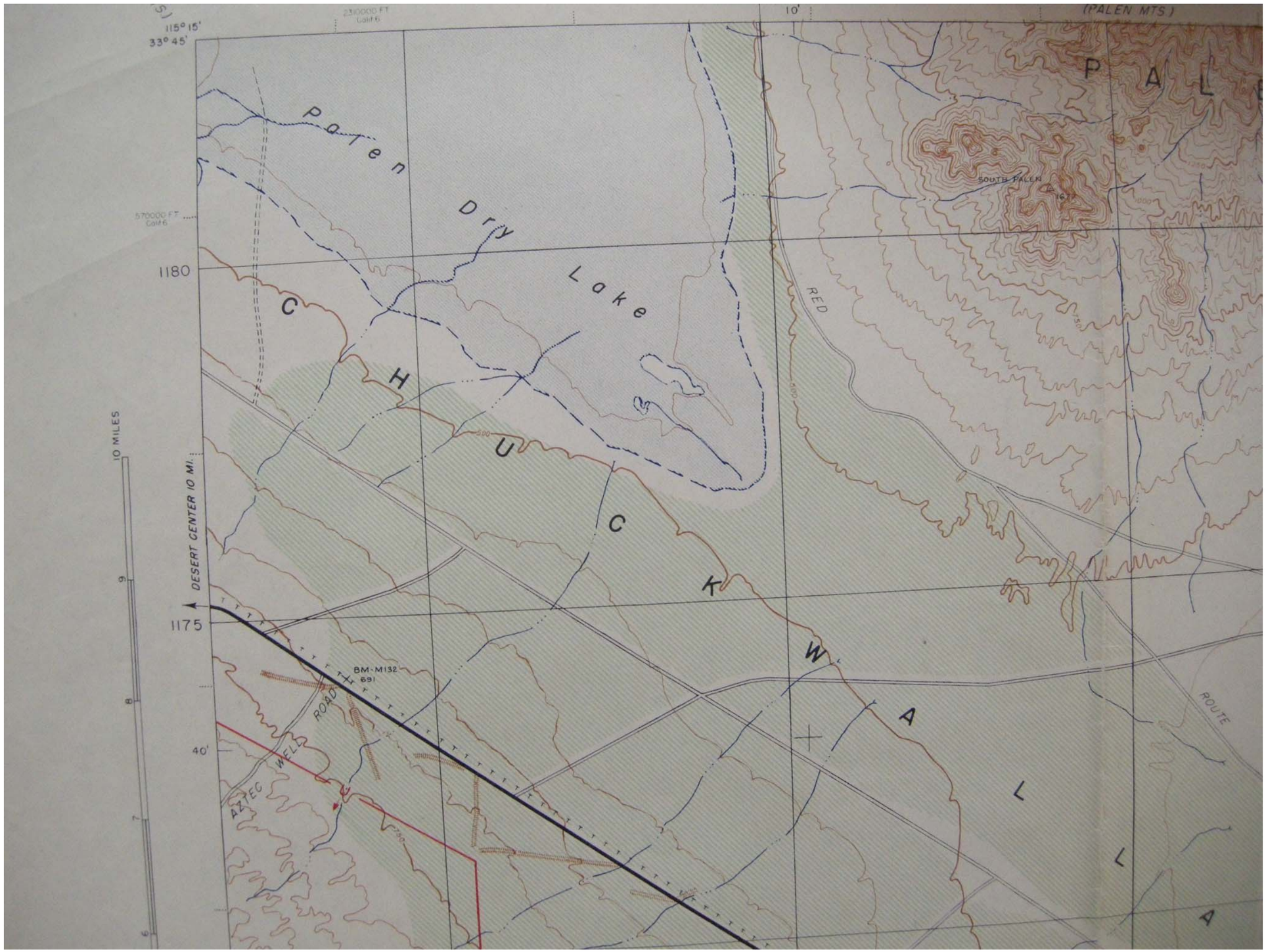
Historic DTC Photo - 1

Historic DTC Photo - 2

Hopkins Well
1943 [1]


Dry Lake

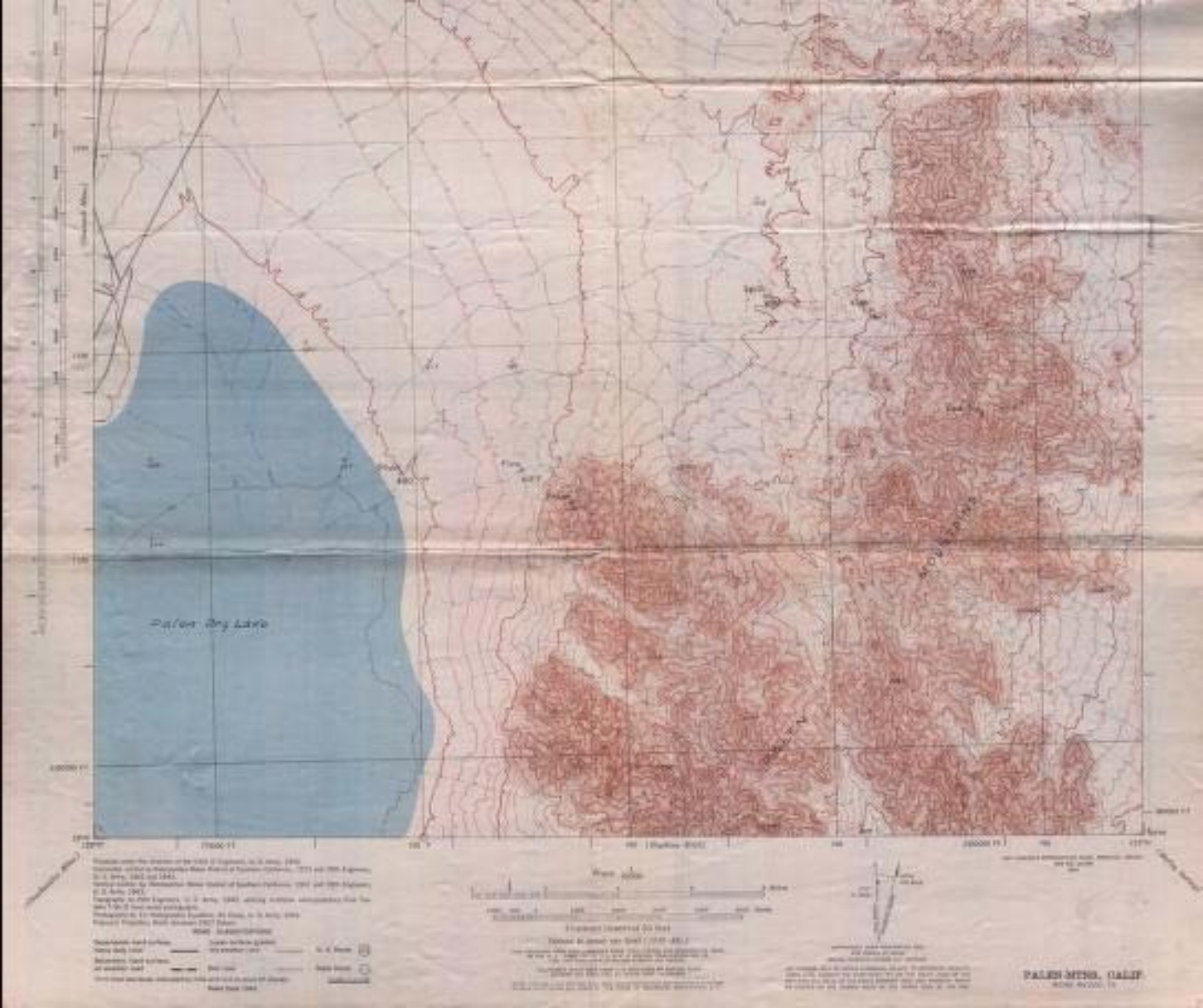
Hopkins Well
1943


115°15'
33°45'
230000 FT
Calif 6
10'
(PALEN MTS.)
P A L E
SOUTH PALEN
4167
570000 FT
Calif 6
1180
Palen Dry Lake
C H U
RED
500
10 MILES
DESERT CENTER 10 MI.
1175
BM-M132
691
AZTEC WELL ROAD
40'
C K W A L L A
ROUTE

Hopkins Well
1943-2


115°15'
33°45'
10'
05'
(PALEN MTS)
P A L E N
SOUTH PALEN
Palen Dry Lake
C H U C K W A L L A
RED
ROUTE
1180
1175
1170
40'
10 MILES
DESERT CENTER 10 MI.
BM-M132
691
AZTEC WELL
ROAD
ROYKE #2
1006

Palen Mountains
1943



PALEN MTNS., CALIF.

Draft Cultural Resources Responses – CEC Workshop, January 14, 2010

During the January 14, 2010 CEC Workshop, staff requested additional historic information on the area of the proposed Palen Solar Power Project (PSPP). Specifically requested were historic maps and photos as well as the recent LIDAR contour data for the PSPP site to facilitate analysis.

DR-123 and DR-124 (Additional Information)

No historic aerial photographs were identified at the Patton Memorial Museum. However, photographs of camp life at the Desert Training Center (DTC) were available. Please see Historic DTC Photo-1 and Historic DTC Photo-2. These photographs show tents at an unknown location in the DTC. Examples of these photographs have been provided as an attachment to this submittal.

Historic maps reviewed for the Class III report included the following:

Map Name	Scale	Year
Chuckwalla Mtns.	1:50,000	1947
Sidewinder Well	1:62,500	1952
Palen Mtns.	1:48,000	1943
Hopkins Well	1:48,000	1943

These maps were accessed on online archives located at the California State University, Chico and the University of Alabama. Adobe files have been created from these online archives and included in the Class III report.

Digital copies of these maps are provided as an attachment to this submittal and can also be found at the following locations:

Chuckwalla Mtns 1947 and Sidewinder Well 1952

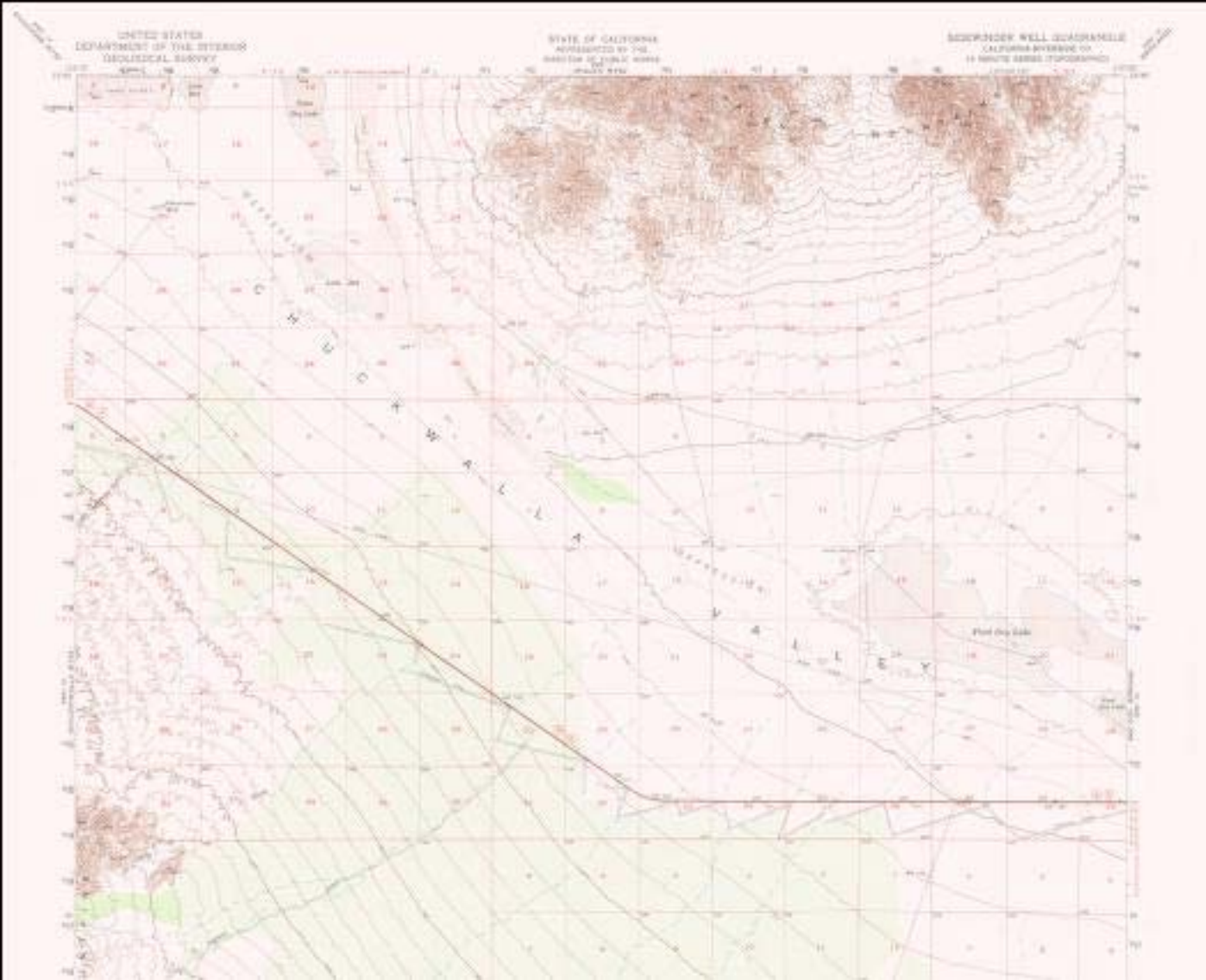
http://alabamamaps.ua.edu/historicalmaps/us_states/california/index_Before1875.html

Palen Mtns 1943 and Hopkins Well 1943

http://cricket.csuchico.edu/maps/topo_search.html

The recent LIDAR survey contour data is also being provided to staff on CD provided as an attachment to this submittal.

Sidewinder Well
1952


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF CALIFORNIA
SEDONIGER WELL QUADRANGLE
CALIFORNIA-RIVERSIDE CO.
15 MINUTE SERIES (TOPOGRAPHIC)
C H O C O L A T E
V A L L E Y