

Appendix B Precipitation and Seeps in Vicinity of WS-09A

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Table B-1 Summary of Annual Rainfall Measured at the Santa Susana Field Laboratory, 1960-2012

Figure B-1 Annual Precipitation at the SSFL, 1960 through 2012

Attachment B-1 Status Report January thru March 2012, Springs in Vicinity of WS-9A Santa Susana Field Laboratory, Ventura County, CA

Attachment B-2 Status Report April thru June 2012, Springs in Vicinity of WS-9A Santa Susana Field Laboratory, Ventura County, CA

Attachment B-3 Status Report July thru September 2012, Springs in Vicinity of WS-9A Santa Susana Field Laboratory, Ventura County, CA

Attachment B-4 Status Report October thru December 2012, Springs in Vicinity of WS-9A Santa Susana Field Laboratory, Ventura County, CA

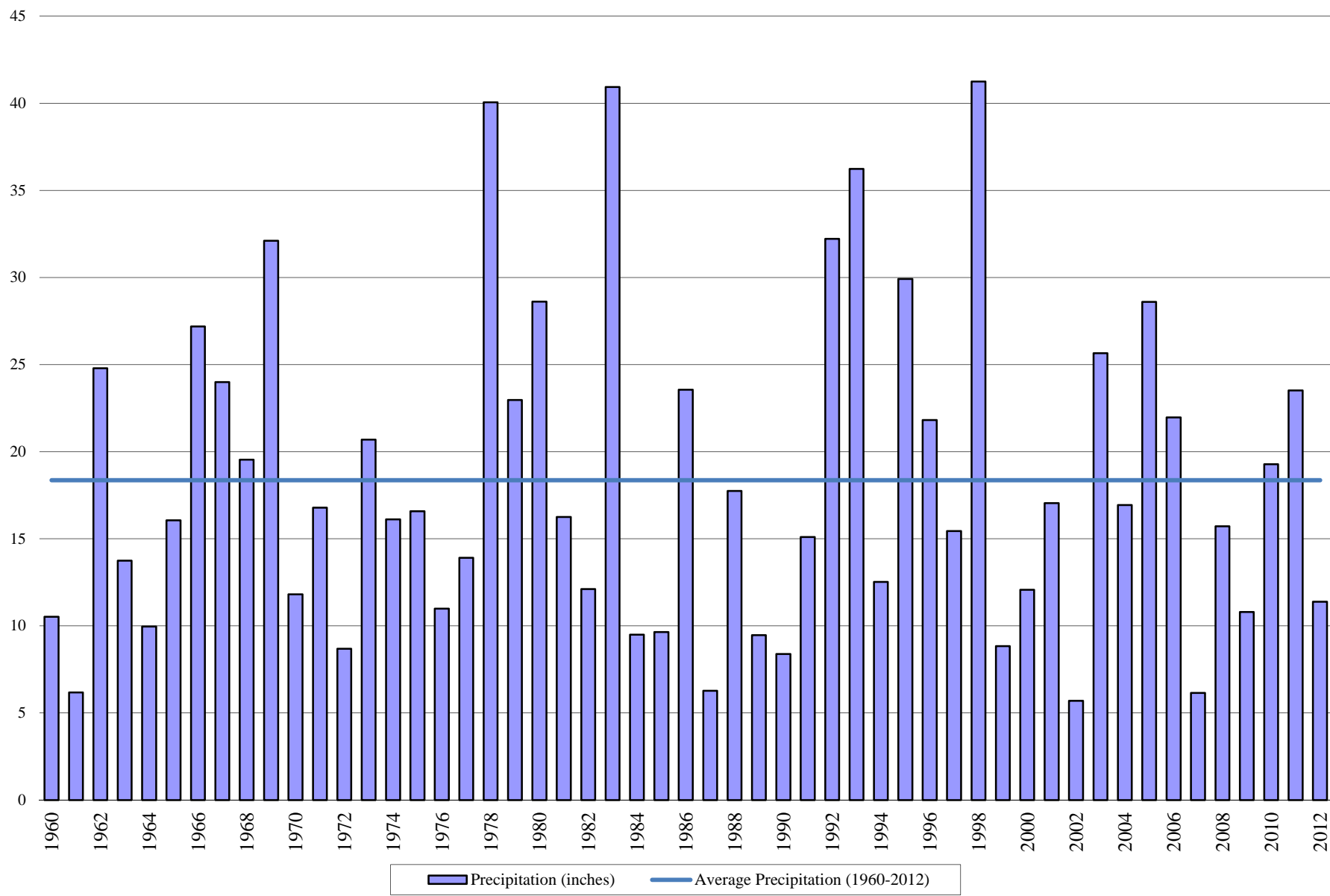
TABLE B-1
SUMMARY OF ANNUAL RAINFALL
MEASURED AT THE SANTA SUSANA FIELD LABORATORY, 1960-2012
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Water Year Ending in	Precipitation (inches)	Water Year Ending in	Precipitation (inches)
1960	10.52	1986	23.55
1961	6.18	1987	6.27
1962	24.79	1988	17.75
1963	13.74	1989	9.46
1964	9.96	1990	8.38
1965	16.06	1991	15.10
1966	27.18	1992	32.21
1967	23.99	1993	36.23
1968	19.54	1994	12.52
1969	32.11	1995	29.91
1970	11.81	1996	21.81
1971	16.79	1997	15.44
1972	8.68	1998	41.24
1973	20.69	1999	8.84
1974	16.11	2000	12.07
1975	16.58	2001	17.05
1976	10.99	2002	5.70
1977	13.91	2003	25.65
1978	40.06	2004	16.93
1979	22.96	2005	28.60
1980	28.61	2006	21.97
1981	16.25	2007	6.15
1982	12.11	2008	15.72
1983	40.93	2009	10.80
1984	9.50	2010	19.28
1985	9.64	2011	23.51
		2012	11.39
Average Annual Precipitation (1960-2012) =		18.36 inches	

NOTE

Precipitation reported annually for the period of October of the prior year through September of the calendar year indicated.

Figure B-1
Annual Precipitation at the SSFL, 1960 through 2012





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HYDROGEOLOGY • ENGINEERING

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April 10, 2012

VIA EMAIL

Ms. Deborah Taege
THE BOEING COMPANY
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304

Re: Status Report January through March 2012 –
Springs in Vicinity of WS-9A, Santa Susana Field Laboratory, Ventura County, California

Dear Ms. Taege,

This letter reports the status of Boeing's recent activity at the subject springs from January 1 through March 31, 2012. Additional details have been discussed in prior reports.

Boeing continued weekly inspections of the springs from January 1 through March 31. During this period, a total of 0 gallons was pumped from FDP-881, 0 gallons from FDP-882, and 0 gallons from FDP-890.

In an effort to minimize flow from the springs, Boeing extracted groundwater throughout the reporting period. A total of 987,341 gallons of water was extracted from WS-9A during the period, with more than 6,378,532 gallons having been extracted since October 26, 2009. The extracted groundwater was treated at the GET system and discharged to Outfall 19.

Sincerely,

HARGIS + ASSOCIATES, INC.

Christopher Liles, PE
Senior Engineer

CML/djr

1050_Status Rpt_Jan thru Mar 2012.doc

Other Offices:
Mesa, AZ
Tucson, AZ



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July 17, 2012

VIA EMAIL

Ms. Deborah Taege
THE BOEING COMPANY
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304

Re: Status Report April through June 2012 –
Springs in Vicinity of WS-9A, Santa Susana Field Laboratory, Ventura County, California

Dear Ms. Taege,

This letter reports the status of Boeing's recent activity at the subject springs from April 1 through June 30, 2012. Additional details have been discussed in prior reports.

Boeing continued weekly inspections of the springs from April 1 through June 30. During this period, a total of 0 gallons was pumped from FDP-881, 0 gallons from FDP-882, and 0 gallons from FDP-890.

In an effort to minimize flow from the springs, Boeing extracted groundwater throughout the reporting period. A total of 2,459,050 gallons of water was extracted from WS-9A during the period, with more than 8,807,333 gallons having been extracted since October 26, 2009. The extracted groundwater was treated at the GET system and discharged to Outfall 19.

Sincerely,

HARGIS + ASSOCIATES, INC.

Christopher Liles, PE
Senior Engineer

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October 15, 2012

VIA EMAIL

Ms. Deborah Taege
THE BOEING COMPANY
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304

Re: Status Report July through September 2012 –
Springs in Vicinity of WS-9A, Santa Susana Field Laboratory, Ventura County, California

Dear Ms. Taege,

This letter reports the status of Boeing's recent activity at the subject springs from July 1 through September 30, 2012.

Boeing continued weekly inspections of the springs from July 1 through September 30. During this period, a total of 0 gallons was pumped from FDP-881, 0 gallons from FDP-882, and 0 gallons from FDP-890.

In an effort to minimize flow from the springs, Boeing extracted groundwater throughout the reporting period. A total of 1,372,352 gallons of water was extracted from WS-9A during the period, with 10,179,685 gallons having been extracted since October 26, 2009. The extracted groundwater was treated at the GET system and discharged to Outfall 19.

Sincerely,

HARGIS + ASSOCIATES, INC.

Christopher Liles, PE
Senior Engineer

CML/djr

cc: Dan Trippeda, The Boeing Company
John R. Scott, PE, The Boeing Company
John Parkes, PE, Jacob and Hefner Associates, Inc.
Marikka Hughes, MWH Global

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January 17, 2013

VIA EMAIL

Ms. Deborah Taege
THE BOEING COMPANY
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304

Re: Status Report October through December 2012
Springs in Vicinity of WS-9A, Santa Susana Field Laboratory, Ventura County, California

Dear Ms. Taege,

This letter reports the status of Boeing's recent activity at the subject springs from October 1 through December 31, 2012.

Boeing continued weekly inspections of the springs from October 1 through December 31, 2012. During this period, a total of 0 gallons was pumped from FDP-881, 0 gallons from FDP-882, and 0 gallons from FDP-890.

In an effort to minimize flow from the springs, Boeing extracted groundwater through November 19, 2012 after which the GET System was shut down to perform maintenance and repair activities on the extraction pump and drop pipe in extraction well WS-09A. In addition, from November 6 through November 19 a pump test was performed for RD-10 during which time the GET System operated intermittently. The springs were monitored to confirm that operational downtime of WS-09A did not result in any accumulation of water in the springs. A total of 438,342 gallons of water was extracted from WS-9A during the period, with 10,618,026 gallons having been extracted since October 26, 2009. Groundwater extracted from October 1 through November 5 was treated at the GET system and discharged to Outfall 19. Groundwater extracted from November 6 through December was treated but tanked for storage pending confirmation of compliance with discharge limitations following pump testing of well RD-10.

Sincerely,

HARGIS + ASSOCIATES, INC.

Christopher Liles, PE
Senior Engineer

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Other Offices:
Mesa, AZ
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HARGIS + ASSOCIATES, INC.

Ms. Deborah Taege
January 17, 2013
Page 2

cc: Dan Trippeda, The Boeing Company
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John Parkes, PE, Jacob and Hefner Associates, Inc.
Marikka Hughes, MWH Global

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