

WEST SIDE SPRING

Location: Approximately ½ mile south of the Old Spanish Trail Highway south of Tecopa immediately west of the Amargosa River.

Directions: From Tecopa, walk south along the river to the spring area. See travel restrictions for Amargosa Canyon Springs. Substantial bushwacking may be required depending on route chosen.

Latitude: N35.84324 (NAD83)

Longitude: W116.22879

Elevation: 1,301 ft

Description: Spring rises immediately west of the river, and flow reaches Amargosa River via channel flowing at about 10 gpm. Site is undisturbed, with mesquite, rushes, willows, cattails, present.

Water Quality Parameters: taken from the channel below the spring source on May 6, 2011.

Temp (oC)	Spec Cond (µS/cm oC)	Salinity (mg/L)	DO (mg/L)	pH
18	1,322	770	4.91	7.98

Use: The spring is not in use.

Access: The spring is on BLM land, via foot traffic only.

West Side Spring

June 4, 1994

Stampmill Rd

West Side Spring Source

West Side Spring (meas. pt)

Am Cyn Spg #1



Google earth

Image U.S. Geological Survey

1000 ft

West Side Spring

June 13, 2013

Stampmill Rd

West Side Spring Source

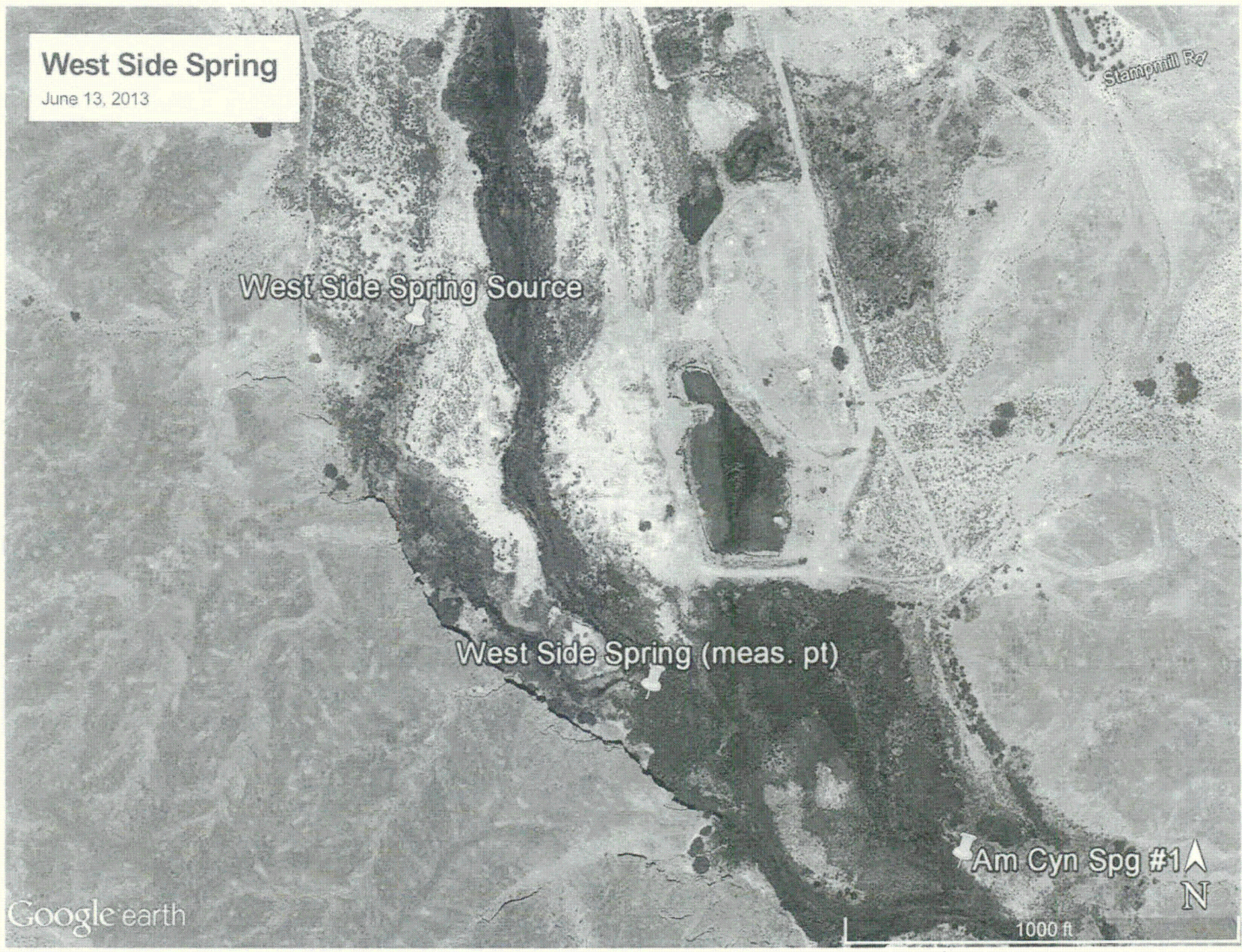
West Side Spring (meas. pt)

Am Cyn Spg #1



Google earth

1000 ft



West Side Spring

June 5, 2009

Stampmill Rd

West Side Spring Source

West Side Spring (meas. pt)

Am Cyn Spg #1



Google earth

Image: USDA Farm Service Agency

1000 ft

West Side Spring

December 30, 2005

Stampmill R₂

West Side Spring Source

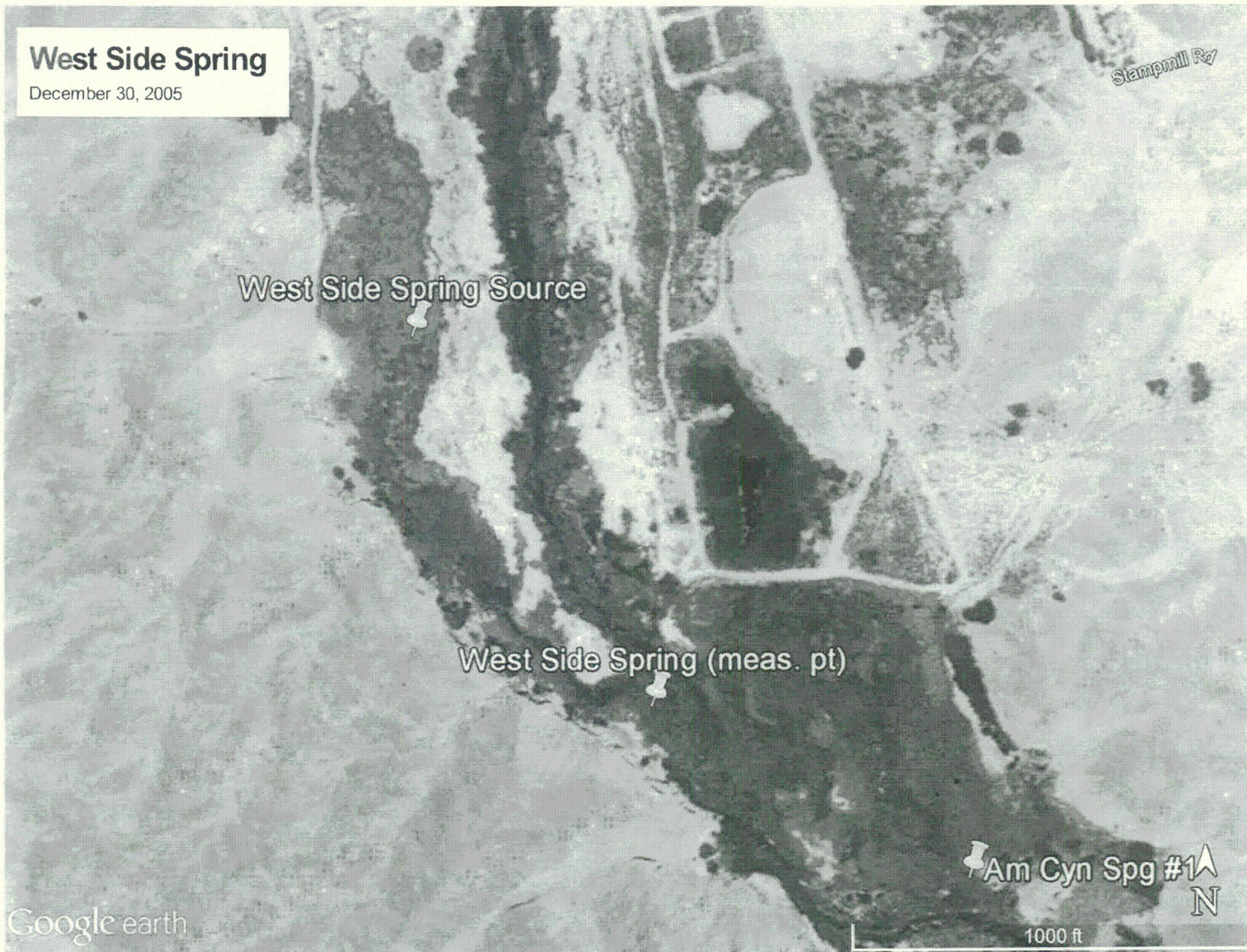
West Side Spring (meas. pt)

Am Cyn Spg #1

N

Google earth

1000 ft



WILD BATH SPRING

Location: Northeast of Tecopa Hills, just east of Tecopa Hot Springs.

Directions: Just north of Tecopa Hot Springs is the turn off to Furnace Creek Road. Following Furnace Creek Road approximately ½ mile to the south east will bring you to Wild Bath Spring. High clearance vehicles are not needed to access this spring.

Latitude: N35.87277 (NAD83)

Longitude: W116.21932

Elevation: 1,424 ft

Description: The surface expression of this spring is water flowing from a hose into a small, in-ground bath or small pool. The source of the water in the hose is buried/inaccessible. Water height in the pool is maintained by a drain in the bottom of the pool connected to a standpipe located in the wall of the pool. People camp near the pool and use it to bathe/soak in. However, it is not as hot as the springs in the Tecopa Hot Springs area. There are several large trees adjacent to the pool.

Water Quality Parameters: taken from the water in the pool. No odor noted. Spring flow is measured using a bucket and a stopwatch. Note that on May 10, 2014, salinity was measured in lieu of TDS. Salinity concentration was 930 mg/L.

Location ID	Date	Flow (gpm)	Temp (°C)	Spec Cond (mS/cm°C)	TDS (mg/L)	DO (mg/L)	pH
Wild Bath Spring	11/11/2010	1.7	29.88	1,642	1067	4.69	7.9
Wild Bath Spring	9/21/2011	1.9	37.99	1,664	1083	5.59	7.83
Wild Bath Spring	5/5/2012	1.3	34.89	1,559	1012	5.64	8.37
Wild Bath Spring	1/25/2013	<2	36.53	1,906	1024	4.52	7.94
Wild Bath Spring	5/4/2013	<2	33.83	1,633	1061	3.97	7.81
Wild Bath Spring	5/10/2014	~5	35.5	2,249	--	3.85	8.2

Use: The spring is used by campers and locals as a place to bathe/soak.

Access: The spring is not fenced and is on land administered by the Bureau of Land Management.

WILD BATH SPRING

Latitude: 35.8728 North Longitude: 116.2193 West Elevation: 1,424 feet
Location Description: Half mile east of Tecopa Hot Springs

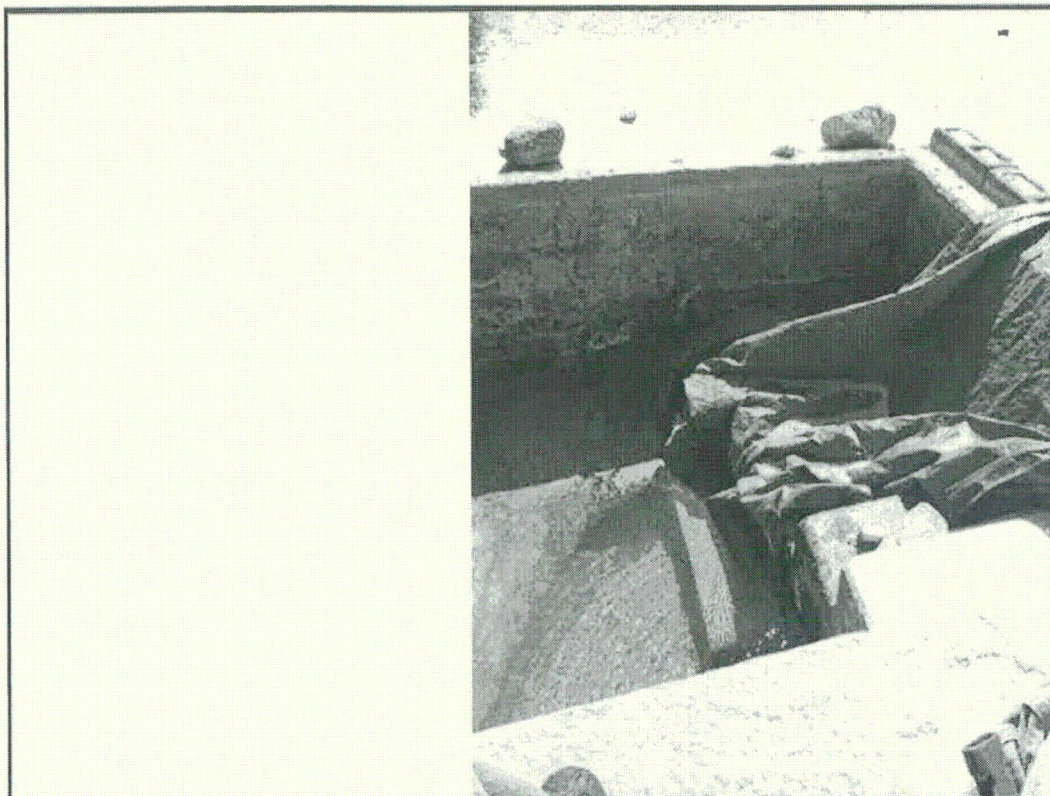


Photo: 1

Date: April 2012

View of the bath area, which had been drained for cleaning.




Photo: 2

Date: January 2013

View of the bath, covered to retain heat.

Wild Bath Spring

June 4, 1994

 Wild Bath Spring

Google earth

Image U.S. Geological Survey



500 ft

Wild Bath Spring

October 30, 2010

Wild Bath Spring

Google Earth

Image © 2010 DigitalGlobe



500 ft

Wild Bath Spring

December 30, 2005

Wild Bath Spring

Google earth

500 ft

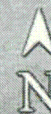


Wild Bath Spring

June 13, 2013

Wild Bath Spring

Google earth



900 ft

WILLOW SPRING

Location: East end of China Ranch within China Ranch Wash.

Directions: Follow Furnace Creek Road east from Tecopa, then south on China Ranch Road to China Ranch.

Latitude: N35.80466 (NAD83)

Longitude: W116.18378

Elevation: 1,420 ft

Background: Willow Spring at China Ranch has long been noted as a source of excellent quality water in the area. Mendenhall (1909) stated: "*China Ranch...also known as Morrison Ranch and Willow Creek Ranch, is on the main road from Daggett to Resting Springs.*" Mendenhall continues, "*The springs that furnish this water rise in Tertiary rocks, which outcrop around the ranch to a height of 500 to 600 feet. Good hay can be obtained here, the first to be had after leaving Daggett, 110 miles south. Willow Creek furnishes sufficient water to irrigate about 100 acres of land. This ranch is one of the real oases of the desert, and travelers appreciate the cool water, the supply of alfalfa, and the shade of fig trees.... J.C. Fremont passed this spot on April 29, 1844, on his way from Tomaso Springs to Resting Springs. He says of it "The ravine (Amargosa Canyon) opened into a valley (Willow Creek), where there were springs of excellent quality".*"

Waring (1915) reported that China Ranch Springs were flowing at a rate of 50 gallons per minute (water temperature 60°F) and being used for irrigation.

Description: This spring is located at the mouth of China Ranch Canyon. Spring flow is initially intercepted in a shallow french drain system installed across the Canyon by China Ranch for irrigation purposes. The captured water is directed through piping into a series of spring boxes and then into a holding tank. From the holding tank, the water is gravity fed into an irrigation system. The flow captured by this system is approximately 28-gpm. When the system is not in use, the water overflows a spring box and continues downstream as overland flow. The spring itself comes to the surface at a point downstream of the french drain capture system. All overland flow through China Ranch itself flows through a culvert near the entrance to the facility. The flow recorded at the culvert location was approximately 120 to 130-gpm (which at the time included the overflowing irrigation system water). This water continues down China Ranch Wash toward the Amargosa River.

Water Quality Parameters: from water captured by the french drain system. No odor noted. Note that on May 9, 2014, salinity was measured in lieu of TDS. Salinity concentration was 630 mg/L.

Date	Temp (oC)	Cond (uS/cm)	TDS (mg/L)	DO (mg/L)	pH	ORP
November, 2010	23.73	1,453	958	5.72	8.26	3.4
5/9/2014	24.5	1,256	--	3.86	7.46	--

Use: The spring is currently used as the source of water for China Ranch.

Access: The spring is on private property. Permission is needed to access the spring.

WILLOW CREEK



Photograph 1: *Flowing water at spring source*



Photograph 2: *Vegetation around Willow Spring*

WILLOW CREEK



Photograph 3: *Downstream flow of spring water within China Ranch property*

Willow Creek

June 4, 1994

China Ranch Rd

Google earth

Image U.S. Geological Survey

2000 ft



Willow Creek

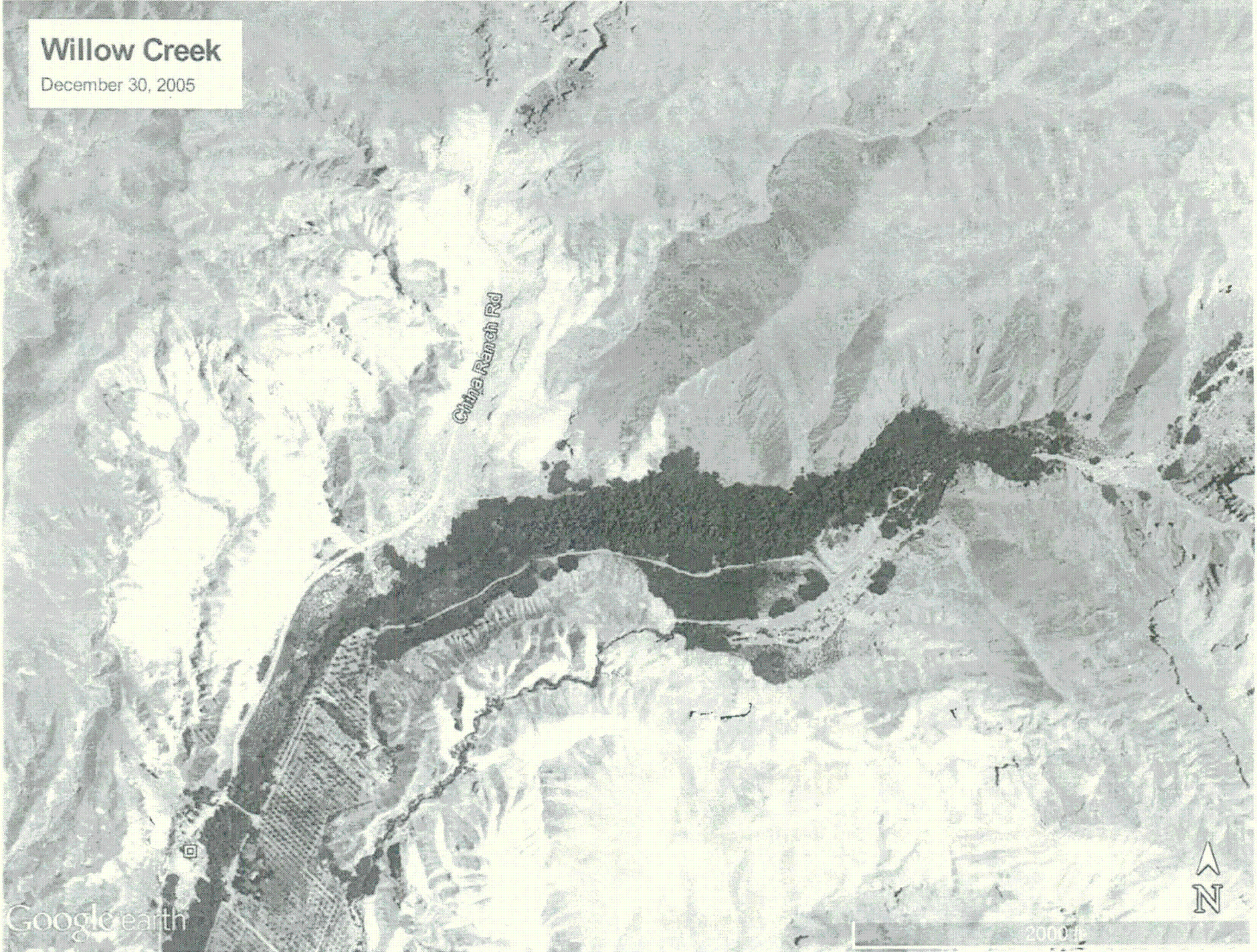
December 30, 2005

China Ranch Rd

Google earth



2000 ft



Willow Creek

June 5, 2009

China Ranch Rd

Google earth

Image USDA Farm Service Agency



2000 ft

Wild Bath Spring

October 30, 2010

Wild Bath Spring

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Image © 2014 DigitalGlobe



500 ft

Willow Creek

June 13, 2013

China Ranch Rd

Google earth

2000 ft

