

**U.S. Bureau of Reclamation Friant Kern Canal (FKC) Subsidence Monitoring Surveys
Central Valley California**

FKC Mile Post	Free Adjustment - 2017 GPS				Desc	NGVD 1929 Elevation Const. (1945-51)	NGVD 1929 Elevation 3/16/1959	NAVD 1988 Elevation 2017	Calculated Subsidence (feet)	
	NAD 83 (2011) CA Zone 4 - US Feet Station	Northing	Easting	NAVD 88 Elev					2017 - Const. (1945-51)	2017 - 1959
834	Record Ctl	1944027.52	6543358.49	411.48	Aerial Target (Surveyed 2011)					
835	Record Ctl	1944029.53	6545150.65	418.86	Aerial Target (Surveyed 2011)					
P300		1996439.36	6185409.39	562.77	DM6174					
P539		1777035.86	6210682.68	2084.49	DH4506					
P567		1672406.42	6635106.57	2423.89	DN7422					
P572		2096270.00	6575001.16	3926.06	DM6186					
88.18	4770+90	1944039.35	6544359.39	422.96	BC NW COR BRIDGE AVE 208/5TH	420.64		422.96	-0.38	
88.22	4773+00	1943786.65	6544408.45	421.29	TACK IN LEAD C/L CHECK DECK			421.29		
92.37	4990+00	1924205.37	6544506.29	420.10	BC NW COR AVE 178/MTN VIEW	417.96		420.10	-0.56	
95.67	5163+00	1909973.34	6535494.78	416.80	SET BOLT CHECK DECK - 2.427 TO BC			416.80		
95.67	5163+00			414.37	BC NW HW TULE RIVER SIPHON	413.47	413.37	414.37	-1.80	-1.69
96.28	5195+00	1907109.44	6534188.84	416.16	BC NW COR BRIDGE AVE 152/W OLIVE	415.75	415.56	416.16	-2.29	-2.10
97.37	5253+00	1901782.30	6532899.58	413.21	SET BC NW COR BRIDGE AVE 144/POPLAR			413.21		
99.35	5358+00	1891247.69	6532719.91	410.62	BC NW COR BRIDGE AVE 128	414.49	414.29	410.62	-6.57	-6.37
102.69	5535+00	1875141.07	6530085.77	403.72	BC NW COR HW DEER CRK SIPHON	410.69	409.86	403.72	-9.67	-8.84
103.66	5580+00	1870152.06	6530058.26	405.65	BC NW COR BRIDGE TERRA BELLA AVE	412.85	411.95	405.65	-9.90	-9.00
104.98	5658+86	1864894.39	6525697.92	406.63	BC NW COR BRIDGE AVE 88	412.51	410.41	406.63	-8.59	-6.49
106.19	5723+00	1859622.16	6522043.77	406.34	BC NW COR BRIDGE AVE 80	412.16	409.68	406.34	-8.52	-6.04
107.34	5783+00	1854486.99	6519100.34	405.95	BC NW COR BRIDGE RD 192	411.81	409.57	405.95	-8.56	-6.32
112.90		1826330.21	6513739.54	407.40	SET BC INLET W RVR SIPHON - 2.785 TO BC			407.40		
112.96	6076+15			404.62	BC SW COR OUTLET WHITE RVR SIPHON	408.17	406.68	404.62	-6.26	-4.77
116.94	6287+50	1806947.29	6508764.11	410.69	SET BC NW COR BRIDGE COUNTY LINE RD			410.69		
120.05	6471+00	1791031.26	6507484.25	406.93	BC SW COR BRIDGE WOOLLOMES AVE	407.55		406.93	-3.33	
121.51	6547+78	1783236.33	6507505.12	407.29	BD ON WALKWAY RESERVOIR CHECK			407.29		
124.27	6690+45	1769996.62	6503536.14	403.81	BC SW COR BRIDGE ELMO AVE	404.42		403.81	-3.31	
127.47	6858+97	1753971.22	6500916.95	405.24	SET BC NE COR BRIDGE DRIVER RD			405.24		
130.03	6927+00	1744842.96	6492064.54	402.56	SET BC ON INLET POSO CHECK -2.890 TO BC			402.56		
130.12	6995+60			399.67	BC SW COR OUTLET HW POSO CHECK	400.00		399.67	-3.03	

- P572 CORS Station Held fixed in horizontal and ellipsoidal, used Geoid 12A to determine elevation.
- Eccentric point surveyed as benchmark was not suitable for GPS Observation.
- Bridge replaced, old point destroyed.

Notes:

1. Coordinates determined using four Trimble GNSS R8 GPS receivers operating in Fast Static mode with a 30 minute minimum occupation time.
2. The average difference between NGVD29 and NAVD88 for the project area is 2.7 feet. (NGVD 29 + 2.7 = NAVD88)