

VENT_270

VENT_270

NEVADA DIVISION OF WATER RESOURCES

ADJUDICATION SECTION

FIELD INVESTIGATION REPORT

DIAMOND VALLEY (BASIN 153) ADJUDICATION

COX RANCH AREA, EUREKA COUNTY, NV

IRRIGATION CLAIMS OF VESTED RIGHT:

V-02845, V-02846, V-02847, V-10368

INVESTIGATED: SEPTEMBER, 2016 and SPRING 2017

INVESTIGATED & PREPARED BY:

Tony Eng

10/2/2017

Tony Eng – Water Resource Specialist

Date

INTRODUCTION

Location and Brief History – The Cox Ranch (V-02845, V-02846, V-02847) and “Willow Field” (V-10368) are located in the east-central portion of Diamond Valley, Hydrographic Basin 10-153, approximately 28 and 30 miles north of Eureka, respectively, in north-central Nevada (Figure 1). These areas are located just to the north of the Thompson Ranch (Figure 2) and about ½ mile west of the Diamond Mountains range front at an average elevation of 5,820 ft. The reader is referred to a more detailed field investigation report filed under V-01115 on the Thompson Ranch, for background information on the general area, weather conditions during the fieldwork, methods, etc. The outline of the current report will follow that for the Thompson Ranch, but in greater brevity. The Cox Ranch was first settled around 1861, initially as a telegraph station and part of the transcontinental telegraph line, which followed the Overland and Pony Express Trail. William F. Cox served as its first telegraph operator, and hence the name of the ranch. The Coxes owned the ranch lands until 1924 when Jorgen Jacobsen purchased it, and the chain of title for the property has followed more or less that of the adjacent Thompson Ranch since then. Daniel S. Venturacci is the current owner of the main ranch and former Willow field.

During the second week of September 2016, the investigator spent approximately two days investigating the Cox Ranch and Willow field areas. Additional minor fieldwork occurred in 2017 during and after the spring freshet when brief visits were made in April, May and June collecting flow measurement data, and/or inspecting for flow of water on the Telegraph, Cox and Judd Canyons ditches, and re-visiting the former springs. This complimented the more extensive fieldwork done in the fall of 2016 and followed a near record year and winter for precipitation in the Diamond Mountains.

The report outline is as follows: 1) summary of the proof filings; 2) flow measurements from the claimed sources; 3) field observation of Points of Diversion (PODs), ditches, crop/culture, etc. in the claimed Places of Use (POUs); 4) a series of photos documenting the above #3); 5) evidence from other maps and county tax records; and 6) other miscellaneous field work in the immediate area. Larger scale reference maps, figures, and tables are included within the main body of the report, while supporting photographs and a few detailed supporting maps are appended.

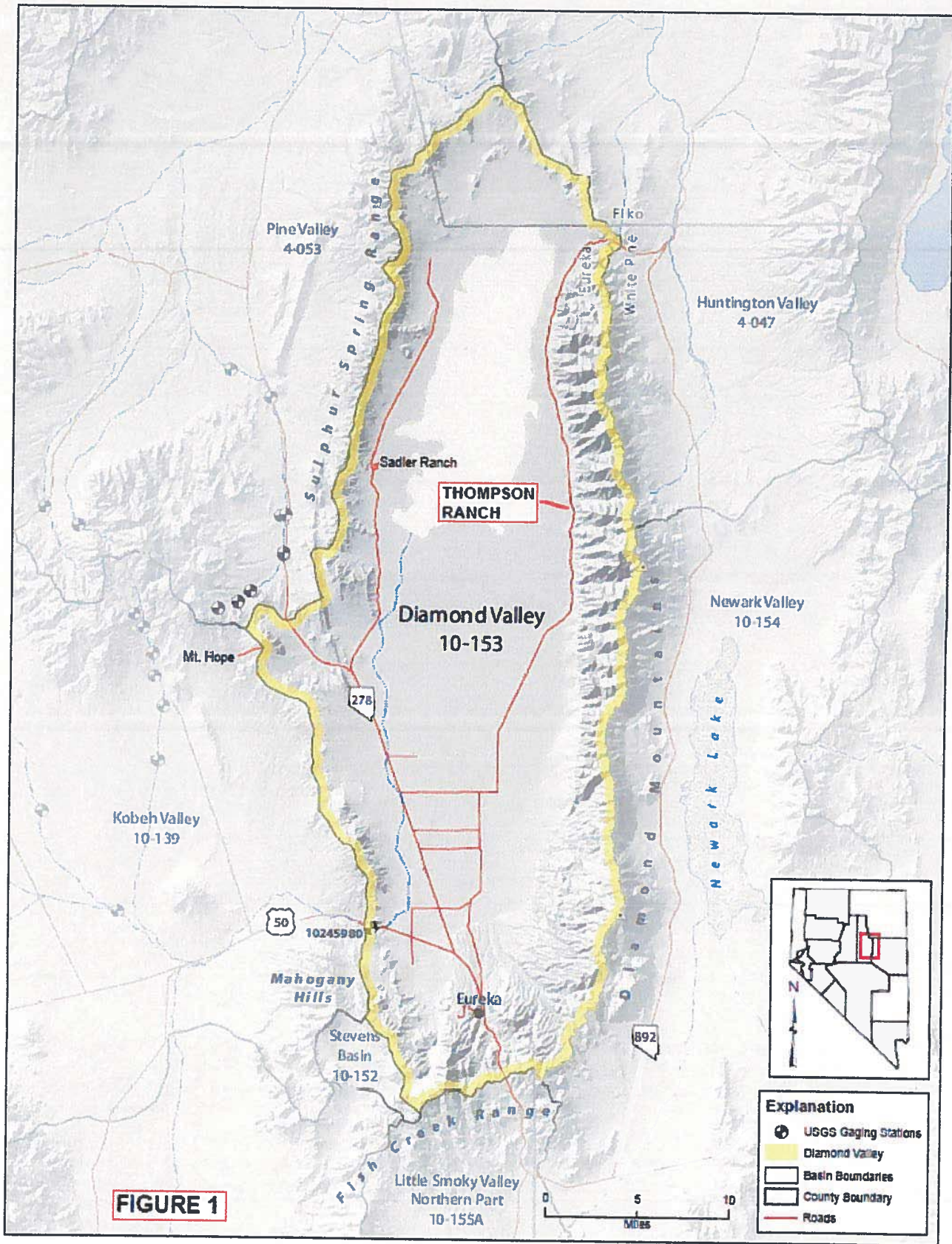


FIGURE 1

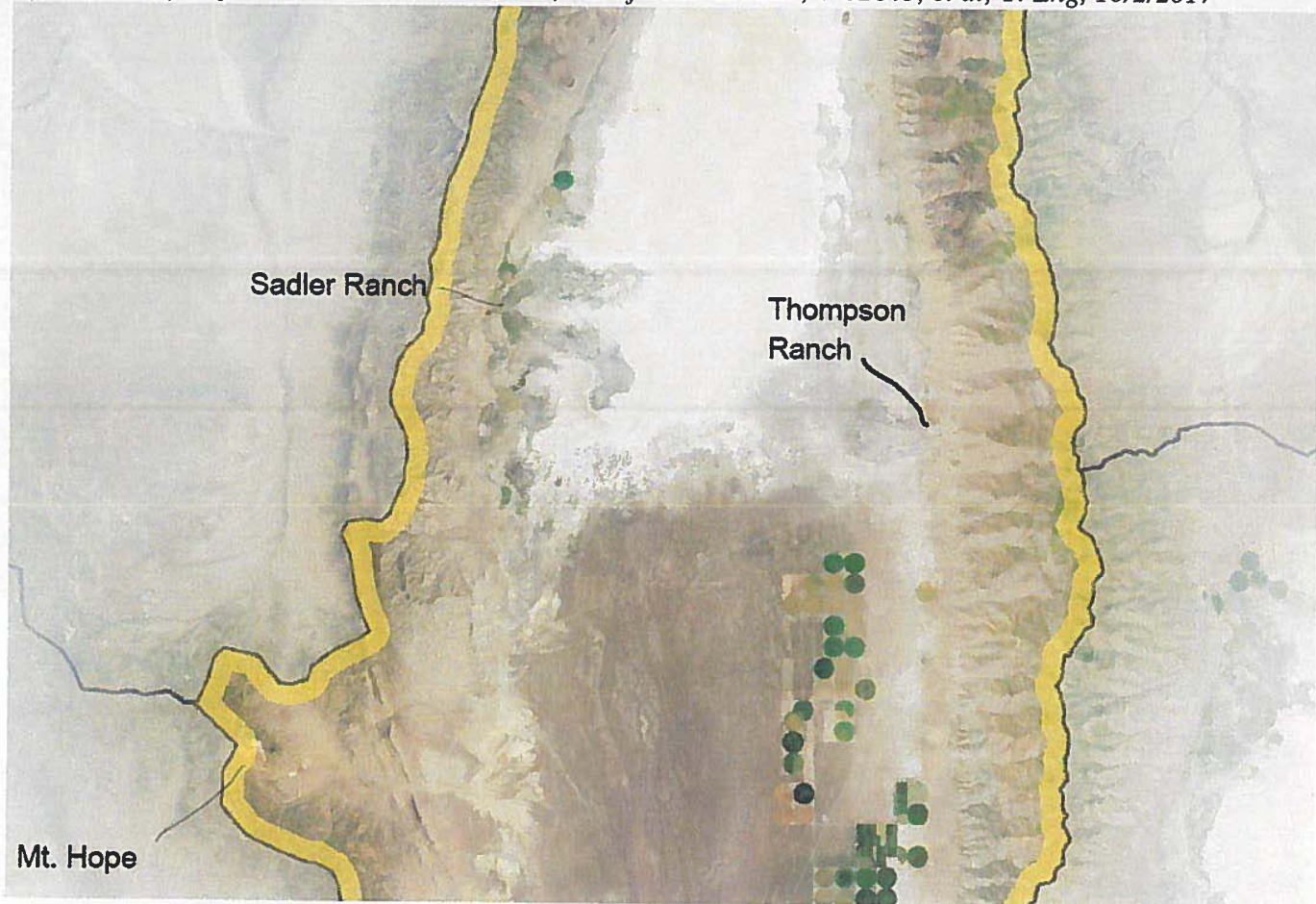


Figure 2 – Enlargement of 2015 NAIP image, north-central portion of Diamond Valley; scale is two center pivots equal 1 mile. The main portion of the Cox Ranch is located 1 mile north of the Thompson Ranch, with the Willow field located 2 miles north of Cox.

SUMMARY OF CLAIMS

V-02845, Telegraph Canyon

Proof of Appropriation V-02845 was filed on December 9, 1974 on behalf of Theodore M. and Olivia M. Thompson, by their Agent Richard W. Forman. The means of diversion was by earth and rock dam with open ditches, and a point of diversion (POD) located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 2, T23N, R54E (Figures 3 & 4). Crops were listed as 58.18 acres of pasture grasses, located mostly within the W $\frac{1}{2}$ of the SE $\frac{1}{4}$ of Section 34. Period of use was April 1 to September 15, and a priority date of 1901 was claimed; stockwatering of 100 head of cattle and horses was listed as an additional use. In the Remarks section of the proof, flow from the creek was said to vary depending on the amount of rain and snow during the year. Ditch dimensions were listed as 2 ft wide at bottom, 5 ft at top and 1.5 ft deep, on a grade of 20 ft/1000 ft.

Proof V-02845 was amended on February 25, 2013 by George M. Thiel, Agent for Daniel S. Venturacci, the current owner. The following are notable changes to the original proof: 1) a separate acreage for the proof was not listed, but with commingling from the two other claimed sources in the ranch area (V-02846 unnamed springs, and V-02846 Cox Canyon), acreage was greatly expanded to 344.89 acres (72.82 acres of hay, and 272.07 acres of diversified pasture (“DP”)); 2) period of use was extended from January 1 to December 31; and 3) stockwatering of 100 head of horses and 500 head of cattle, and domestic uses were added.

The amended POU for the Cox Ranch is summarized and illustrated in Figures 3 (USGS topographic map) and 4 (2015 aerial). Table 1 summarizes the change in acreages between the original and amended proof maps for the main ranch. As shown in the table, the claimed irrigated acreage more than quadrupled with the filing of the 2013 amended proof and map.

TABLE 1 – COX RANCH, SUMMARY OF CLAIMED ACERAGES

Combined POU Acres: V02845, V02846 (SPRS) & V02847	1975 Map	2013 Map
Pasture Grasses/Hay	80.66	72.82
Diversified Pasture (DP)	0	272.07
TOTAL IRRIGATED ACRES	80.66	344.89
TOTAL RANCH ACRES (private lands)	320.00	320.00

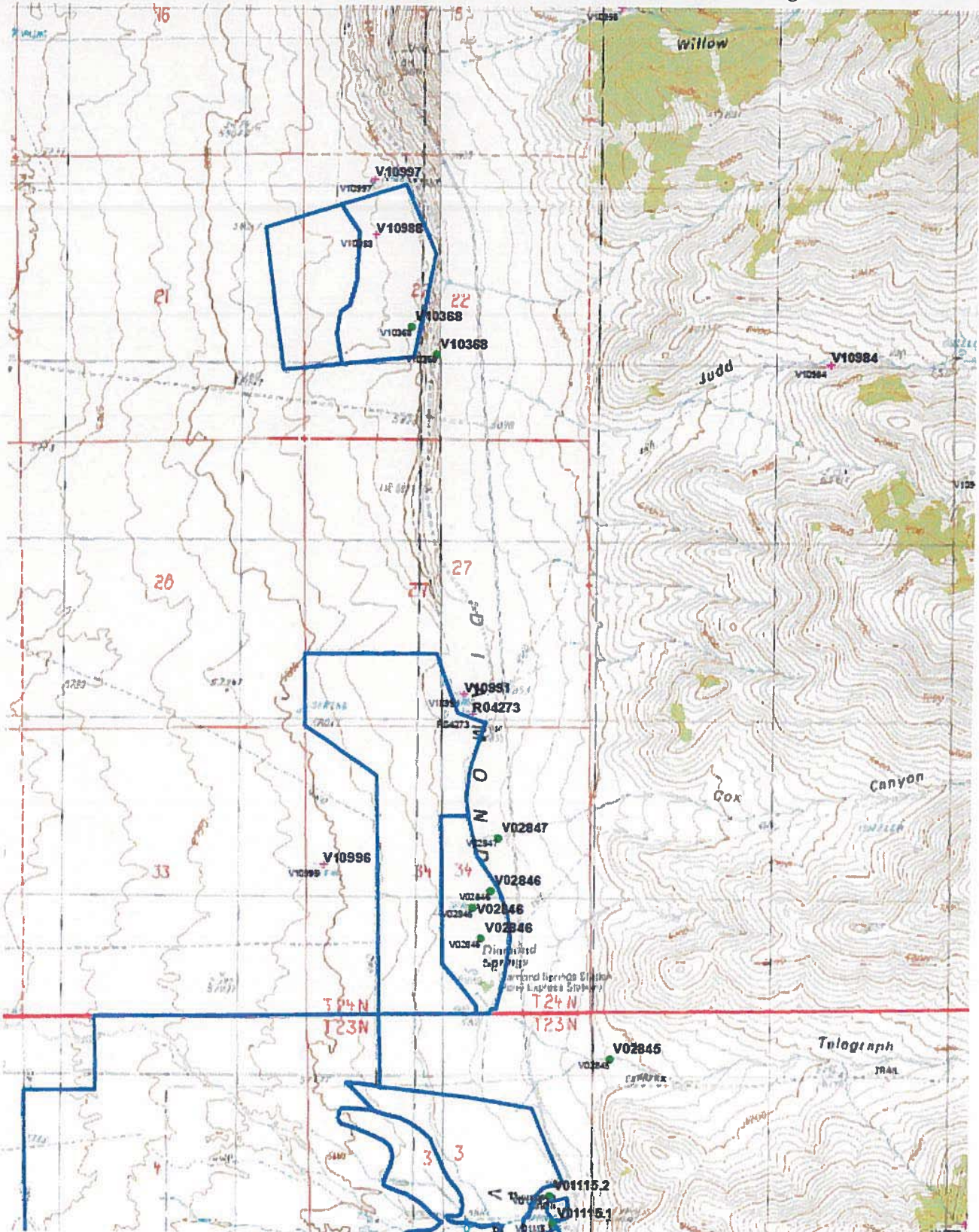


Figure 3 – Cox Ranch Area topo map, showing locations of PODs & POUs; the smaller polygon in Sec. 34 is the approximate POU per the 1975 map, while the larger polygon is the POU per the 2013 map; irrigation PODs indicated by green dots, stocks PODs small red crosses; former Willow field located in Sec. 22.

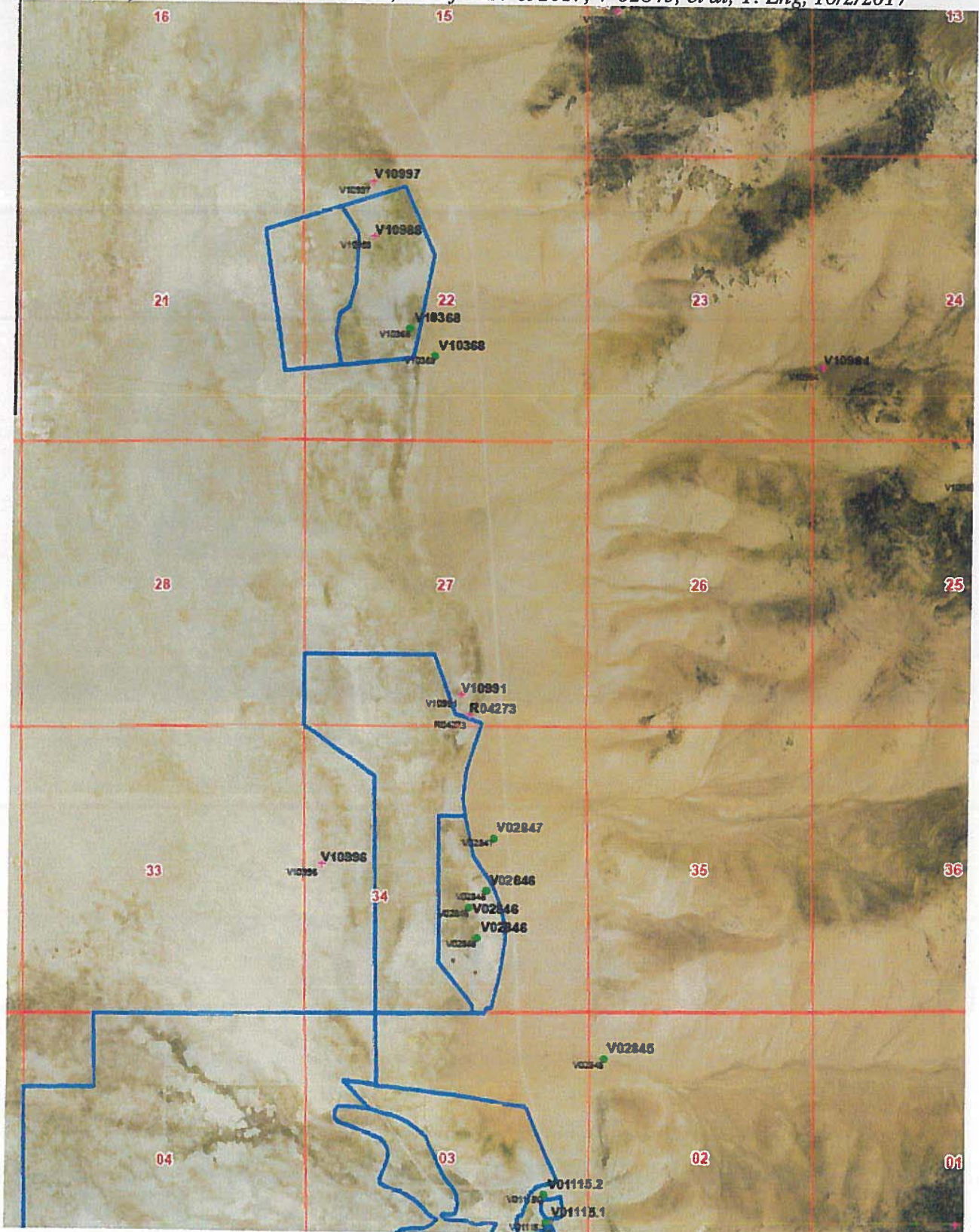


Figure 4 – Cox Ranch Area 2015 aerial, showing locations of PODs & POUs; the smaller polygon in Sec. 34 is the approximate POU per the 1975 map, while the larger polygon is the POU per the 2013 map; irrigation PODs indicated by green dots, stocks PODs small red crosses; former Willow field located in Sec. 22.

V-02846, Unnamed Springs

(Note: These springs are mis-identified on the USGS topographic map, Figure 3 as “Diamond Springs”; also the Diamond Springs and Pony Express station are mis-located on the topo map, and belong at the Thompson Ranch). The filing information for this proof is similar to that for V-02845 with the following exceptions: 1) three spring PODs with tie and bearings were listed, all located in the W½ of the SE¼ of Section 34, T24N, R54E, with the means of diversion being “sub-irrigated”; 2) period of use was expanded to January 1 to December 31; and 3) 13.97 acres of pasture grasses in the immediate area of the springs were claimed as the crop. In the Remarks section, it was stated that it was impossible to obtain a water flow measurement because the grounds were sub-irrigated from the spring area. The proof was amended on February 25, 2013 in a similar manner as V-02845, with the following notable additions: 1) the PODs and springs claimed utilized the same tie and bearings as the original V-02846 filing, with the means of diversion by sub-irrigation and open ditches; 2) the priority date was changed to pre-1879; and 3) under Item 16 the following statement was made: “Due to over appropriation of the groundwater basin the springs and seeps have disappeared. By 1993 all of the resources fully ceased to exist”. In the Remarks section, the following summary is also pertinent to the springs: *“Water from the unnamed springs is commingled and supplemental with other sources on the place of use, including multiple additional seeps and springs within the place of use.....The entire flow of the appurtenant springs is diverted and used to irrigate lands, domestic use and water livestock when available. The diversified pasture areas include Red Top Fescue, Timothy, and Johnson Grasses”*.

V-02847, Cox Canyon

The filing information for this proof is similar to that for V-02845 with the following exceptions: 1) the POD was described as being in the SW¼NE¼ of Section 34, T24N, R54E; and 2) 8.51 acres of pasture grasses were claimed. The proof was amended on February 25, 2013 with similar changes to the amended for V-02845.

V-10368, Judd Canyon, Unnamed Springs and Seeps

Proof of Appropriation V-10368 was filed on February 25, 2013 on behalf of Daniel S. Venturacci, by his Agent George M. Thiel; the claim covers the area referred to as the “Willow

Field". The means of diversion was by earth and rock dam with open ditches, with PODs for Judd Canyon and Unnamed Spring located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22, T24N, R54E; the additional springs and seeps were not described by legal description other than being within the POU. The priority was listed as pre 1879; no ditch dimensions were listed. Rye grass and diversified pasture ("DP") were the crops, irrigated from January 1 to December 31, with a claimed acreage of 190.59 acres (102.35 acres rye grass, 88.24 acres DP). Under Item 16 the following statement was made: "Due to over appropriation of the groundwater basin the springs and seeps have disappeared. By 1993 all of the resources fully ceased to exist". Stockwatering of 100 horses and 500 cattle, and domestic were other uses. In the Remarks section, water from Judd Canyon was said to run only in the spring of the year, with flow rates varying depending on precipitation and snow melt, and is commingled and supplemental with the other sources on the POU. Spring flow and seeps were said to have been declining since the onset of heavy development of groundwater rights in the basin, with the entire flow of the appurtenant springs diverted and used when available. Diversified pasture areas include Red Top Fescue, Timothy, and Johnson Grasses. Proof V-10368 was amended several times shortly after initial filing to correct several tie and bearings, and to make other minor changes. A supporting map was filed on April 15, 2013; the claimed POU and PODs are illustrated in Section 22 in Figures 3 & 4.

**FLOW MEASUREMENTS, COX RANCH AREA
TELEGRAPH CANYON (V-02845), et al.**

Approximately half dozen flow measurements are available for Telegraph Canyon (V-02845) and are summarized in Table 2. Three measurements by James Harrill of the USGS from the mid-1960s, range from 0.24 cfs to nil. The location of the measurements are known only by the 40-acre subdivision (NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 2), or ~1 mile east of the ranch. Stream flows are likely higher in that area than at the claimed POD or POU, as it is up gradient from the range front. A flow measurement was made on the Telegraph Canyon ditch on April 10, 2017, just above (east) the SE corner and start of the claimed POU and irrigation, ~ $\frac{1}{2}$ mile NW of the claimed POD (Photos 1-2). A flow rate of 0.362 cfs (162 gpm) was determined using a 90° V-notch weir at 7 PM. The flow was similar on the morning of the subsequent day. However, inspection of the culvert crossing for the Telegraph Canyon ditch along the county road in May and mid-June

revealed no evidence of recent flow, and the sand and silt in the ditch were dry on most later visits. The unnamed springs (V-02846) on the Cox Ranch were dry when recently visited (Photo 3), and they were also dry when USGS and DWR personnel visited them in 1981 and 1982 (Table 2). The springs were said to be flowing in 1974 when the original proof was filed; therefore, they likely ceased flowing in the late 1970s.

The Cox Canyon ditch (V-02847)(Photo 4) and Judd Canyon ditch (V-10368)(Photos 5 & 6) were inspected at their respective culvert crossings along the county road, etc., on the same approximate dates in 2017 as the Telegraph Canyon ditch, and were not flowing on any occasion (Table 2). However, sand and silt in the Cox Canyon ditch was moist on April 11, 2017 indicating some previous minor flow. From these data, it is apparent that the three canyons and their associated ditches and claims have very limited flow even in the spring, and with the exception of the Telegraph Canyon ditch, would not provide the quantity of water needed for significant irrigated acreage.

**TABLE 2 – FLOW MEASUREMENTS, COX RANCH AREA,
TELEGRAPH CANYON, V02845, et al**

Claim No	Field Site Name	Date	Time	Flow Rate	Method	Rating Code	Water/Air temp °F
V02845	Telegraph Canyon, USGS site	5/13/1965	N/A	0.24 cfs	N/A	N/A	N/A
		4/1/1966	N/A	0	N/A	N/A	N/A
		10/19/1966	N/A	0	N/A	N/A	N/A
V02845	V02845, Telegraph Canyon ditch	9/9/2016	15:10	0	visual	excellent	N/A, mid 80's
		4/10/2017	19:00	162 gpm/0.362 cfs	90° weir	excellent	45/43
		5/1/2017	17:40	0 (moist sand/silt)	visual	excellent	N/A, upper 50's
		5/22/2017	19:00	0	visual	excellent	N/A, low 70's
		6/16/2017	20:20	0	visual	excellent	N/A, upper 70's
V02846	Cox Ranch/unnamed Springs	1965-1966	N/A	flowing	visual	poor	N/A
		1974	N/A	flowing	visual	poor	N/A
		Fall, 1981	N/A	dry	visual	good	N/A
		3/10/1982	N/A	dry	visual	good	N/A
		9/9/2016	17:00	0	visual	excellent	N/A, mid 80's
		4/10/2017	13:15	0	visual	excellent	N/A, low 70's
V02847	V02847, Cox Canyon ditch at rd	9/9/2016	16:00	0	visual	excellent	N/A, mid 80's
		4/11/2017	13:55	0 (moist sand/silt)	visual	excellent	N/A, low 60's
		5/1/2017	17:45	0	visual	excellent	N/A, upper 50's
		5/22/2017	19:10	0	visual	excellent	N/A, low 70's
		6/16/2017	20:20	0	visual	excellent	N/A, upper 70's
V10368	V10368, Judd Canyon ditch at rd	9/10/2016	15:25	0	visual	excellent	N/A, mid 80's
		4/11/2017	14:15	0	visual	excellent	N/A, low 60's
		5/1/2017	17:45	0	visual	excellent	N/A, upper 50's
		5/22/2017	19:10	0	visual	excellent	N/A, low 70's
		6/16/2017	20:25	0	visual	excellent	N/A, upper 70's

OTHER FIELD OBSERVATIONS & FINDINGS

H.M. Payne of the State Engineer's Office visited the Cox Ranch in October 1912; the following is taken directly from his field notes.

"Cox's Ranch derives its water for irrigation from four canyons, namely Road (Telegraph), Neil (Cox), Judd, and J. Jackler Canyons. The latter three, however, seldom flow enough water to benefit Mr. Cox materially, although Road Canyon will flow some water from April 1st to May 15th, the maximum at this time being about 1½ sec. ft. It is used to irrigate 8 acres of alfalfa, said

alfalfa lying in two separate pieces. This ranch has a vested right. The land already mentioned is all that is irrigated, but in addition there are 60 or 70 acres of natural meadow, upon which Mr. Cox cuts hay every year. There must be water very close to the surface in this vicinity, as I noticed a number of small springs in the field, beneficial however, only for stock use."

The recent inspections of the Cox Ranch indicate that in more modern times the **Telegraph Canyon water (V-02845)** has been ditched southward to the northeast end of the Thompson Ranch (as shown on the USGS topo and Figure 3). There is also evidence of water being ditched northward to the more central portion of the Cox Ranch POU, per the 1975 proof map, with the ditch entering the POU near the center of SE¼ Section 34. When visited in April 2017, the Telegraph Canyon ditch water was flowing per the 2013 proof map, directly to the southeast corner of the claimed POU near the ruins of the historic Cox Ranch buildings (Photos 1 & 2); this is the drainage illustrated on the USGS topographic map. At that time, the ditches had been re-excavated and cleaned earlier in the spring, and water was flowing northward in the east bounding highline ditch along the fence for ~100 yards or more, and flood irrigating a small 3-5 acre area. Mr. Venturacci attempted a crop of wheat in 2016 in this general area but was unsuccessful, and the area planted consisted mostly of dry mustard weed in September 2016. This is likely the area where the 8 acres of alfalfa mentioned by H.M. Payne was located, adjacent to and just east of the former springs. In April 2017, a large area of the ranch had been cleared and brush-hogged, and a smaller area on the far east side also raked.

The **Cox Ranch former spring areas (V-02846)** in the W½ of the SE¼ Section 34, were identifiable only by somewhat hummocky topography, and upon closer inspection, generally thick, dry peat-organic-rich soils (Photo 3). In September 2016, abundant tall scotch thistle was growing in several of the former spring areas, and on both occasions the peat-rich soils were commonly fissured to depths of 1-3 ft due to desiccation. At the southern-most spring depicted on the USGS topographic map, a large willow tree with a ~50 ft diameter canopy is present, ~100 yards northwest of the ruins of the former ranch. The large willow is located ~200 yards south of the southern-most spring claimed on the two proof maps. Mr. Venturacci stated that he has trucked water to the tree for several or more years in order to sustain it. There is evidence of a handful of large willow and/or cottonwood trees located mostly to the north, which based on their large trunk size, are indicative of former substantial wet conditions and near surface water.

It is probable that the Cox Ranch springs have suffered the same fate as the Thompson Ranch springs to the south, but at an earlier date, and likely ceased flowing in the late 1970s versus the early 1990s.

Several building foundations were observed where the former telegraph station and/or ranch ruins are located; one of the structures has a standing wall constructed of local, rough natural stone. A probable rock-lined, hand-dug well is adjacent to one of the former structures. A bedspring mattress is draped over the 3 by 3 ft excavation, probably to keep cows from falling in it; other debris fills it so its depth could not be determined.

Judd Canyon and the points of diversion for V-10368 were investigated on several occasions. Inspection of the Judd Canyon ditch revealed that in relatively modern times, the actual POD that attempts to divert water is a broad ditch bladed with a bulldozer. The ditch commences just above (east) of the range front in the southwest corner of Section 23, and then drains toward the claimed POU ~½ mile to the northwest, where it intersects a smaller west draining gully near the center of Section 22 at the county road (Figure 4). This smaller gully is likely J. Jackler Canyon referenced in H. M. Payne's 1912 notes. The as-built construction found in the field is in contrast to the 2013 filed proof map, which shows the ditch draining more westerly and the ditch POD near the southeast corner of the claimed POU, and commingled spring(s) for irrigation ~200 yards to the northwest of there (Photo 5). As stated earlier, no water was ever observed in the Judd Canyon ditch or canyon on multiple visits, including a ½-mile or more traverse eastward into the mountain block. The overall character of the ditch substrate and vegetation suggest there is rarely significant flows below and west of the range front (Photo 6). On the ground, there is little or no evidence of the claimed spring(s) located in the southeast corner of the POU. There is a concentration of rabbitbrush, lesser sagebrush and some grasses in the general area, which suggest a possible source of near surface water from a former spring, or more likely subsurface flow west of and below the range front. The older 15' USGS topographic map published in 1957, does depict an approximate 40 acre marsh in this general area, and the 1879 GLO map also shows a southwest draining spring and small meadow. However, on the latter map these features are located ~½ mile to the northeast.

OTHER EVIDENCE

Evidence From Other Maps - The GLO map for T24N, R54E dated 1879 serves to validate human occupation and possible beneficial use of water in the immediate Cox Ranch area at that time, as Cox's house, telegraph station and an 80 acre parcel are illustrated in the south central portion of Section 34.

An unpublished Agricultural Conservation Program (ACP) map of the Cox Ranch dated 1938 shows a fenced parcel consisting of about 340 acres, and the same size and shape as the current main ranch parcel. The map identifies 10.47 acres of pasture on the far east-central portion of the parcel, 70.99 acres of mixed grasses mostly west of the pasture, and 257.9 acres of "waste land" in the central and entire north portion of the parcel (see appended Figure 5). The 10.47 acres of pasture may correspond to a portion of the 8 acres of alfalfa noted by H.M. Payne in 1912, and the 70.99 acres of mixed grasses may correlate with the 60 to 70 acres of natural meadow cut for hay also noted by him. Collectively, the original filed proofs for V-02845 and V-02846 were 58.18 acres and 13.97 acres, respectively, of pasture grasses, which lends some credibility to the original proofs. However, the land classified as "waste land" corresponds to much of the 272 acre area claimed as DP on the 2013 amended proof map, and clearly questions its validity.

The 1938 ACP map for the Willow field (Figure 6), V-10368 shows a fenced parcel of about 200 acres with the following culture: 1) 22.15 acres of pasture along the far east side of the parcel; 2) 111.59 acres of mixed grasses to the west of the pasture; and 3) 66.41 acres of waste land on the west side of the parcel. The latter land roughly corresponds to the 88 acres of DP claimed on the submitted proof map, challenging its validity.

Evidence From County Tax Records - Patent applications and tax records submitted in support of the vested claims date back to the 1880s for smaller portions of the current Cox Ranch. A state land patent was issued in 1901 for 80 acres in the W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 34, covering the current ranch ruins and main portion of the historic Cox Ranch. The remaining 240 acres of the main ranch were not patented until 1907 and 1908. The 240 acres comprising the Willow field were patented in 1901 and 1902.

Table 3 is a summary of Eureka County tax assessment records for the Cox Ranch for three separate years from 1900 to 1918. From the legal descriptions, the records also include the

Willow field (V-10368). For the Year 1900, 240 acres were described as being owned by W.F. Cox; animals included 24 head of cattle and 115 horses, along with a house, stable and corrals. In 1912, he owned 320 acres and had 25 head of cattle, 26 horses and 2 milk cows. G.E. Cox owned 160 acres in the main Cox Ranch area, but was not assessed for any animals. In 1918, W.F. Cox was assessed for 40 acres of wild hay at \$18/acre, and 280 acres of grazing land at \$3/acre, along with 20 head of cattle and 3 horses. For the same year, G.E. Cox was assessed for 40 acres of grazing land at \$5/acre, and 200 acres grazing at \$3/acre, and no animals. For the adjacent Thompson Ranch in 1918, all but 140 acres of the ranches 1,724 acres were assessed at the grazing \$3/acre amount, and is likely that this rate there merely represented fenced land, not developed agricultural land. Therefore, the tax assessment records for the Cox Ranch lends support for occupation of the ranch and stockwatering of 139 head of horses and cattle in the Year 1900, although significantly fewer number of animals in subsequent years. This serves to validate the claimed use of “100 head of cattle” per the original 1975 proofs for V-02845 through V-02847, but not the 2013 amended proofs claiming stockwatering for 100 horses and 500 head of cattle. Irrigated and grazing lands are only listed for the Year 1918, but likely also existed for the two previous assessed years listed, especially Year 1900 when more than 100 head of stock were assessed. For the Willow field (V-10368) the only improvement listed for the Year 1900 was 40 acres fenced in the NE¼SW¼ Section 22.

TABLE 3 – EUREKA COUNTY TAX ASSESSMENT RECORDS, COX RANCH, 1900-1918

YEAR	OWNER	HIGHER ASSESSED ACRES	MIDDLE ASSESSED ACRES	LOWER ASSESSED ACRES	TOTAL ACRES	CATTLE	HORSES	MILK COWS
1900	Cox, W.F.	N/A	N/A	N/A	240	24	115	NS
1912	Cox, W.F.	N/A	N/A	N/A	320	25	26	2
1912	Cox, G.E.	N/A	N/A	N/A	160	NS	NS	NS
1918	Cox, W.F.	40 acres wild hay @ \$18/ac	N/A	280 acres grazing @ \$3/ac	320	20	3	NS
1918	Cox, G.E.	N/A	40 acres grazing @\$5/ac	200 acres grazing @ \$3/ac	240	NS	NS	NS

VERACITY OF CLAIMS & CONCLUSION

The historical record and notes from H.M. Payne’s 1912 inspection of the Cox Ranch support the claim of harvest lands (8 acres of alfalfa) in the POU, and is highlighted by his statement that “the ranch has a vested right”. Since alfalfa is a high water demand crop, it is possible that some of it may have been sustained by capillary action from the adjacent former springs, especially if

more than one cut was harvested, since flows from Telegraph Canyon have been shown to be limited. Quantifying the amount of other harvest lands (meadow grasses/hay) and diversified pasture remains problematic. H. M. Payne mentions 60 or 70 acres of natural meadow; this would certainly appear to qualify as beneficial use of water since it was cut and harvested. In addition, it would appear that at least some lands would qualify as diversified pasture based on the number of cattle and horses on the ranch around the turn of the 19th century, and fairly continuous occupation or beneficial use of water on the Cox Ranch portion until the springs ceased flowing. Also, Payne's statement that the springs watered stock indicate an important stockwatering component to the former springs.

The historical record for the Willow field (V-10368) is not as evident. H.M. Payne makes no mention of irrigation at this locality in his 1912 notes, whereas he provides notes and brief descriptions of five separate ranch areas with irrigation claims and water rights at the time in this part of Diamond Valley. His notes cover an area from the Maggini Ranch (5 miles south of Cox Ranch) to the Mau Place (Box Canyon, 5 miles north of Cox). The patent records granting title to the Willow field's 240 acres in 1901 and 1902, would suggest that enough improvements had been made before 1905 to warrant patenting, but other supporting data are lacking for a vested claim on the former springs. The assessment records mention only "40 acres fenced" in the Year 1900 for the Willow field, although in later years after 1905, there are reports of the area being hayed by the Thompsons and their predecessors. The probable source of water was likely one or more former springs west of the range front. The 1879 GLO and 15' USGS topographic maps illustrate a spring, and/or marsh or meadow in this general area, supporting their earlier existence. The flows from Judd Canyon are too minimal to support a crop, though there is evidence of attempts to utilize what little water does flow. This concurs with H. M. Payne's notes that Telegraph (Road) Canyon is the only drainage in the greater ranch area, which flows enough for cultivation of a crop.



Photo 1 – Cox Ranch, Telegraph Canyon ditch, and southeast corner of POU for V-02845 et al, looking NNW. Ruins of ranch buildings and telegraph station are located to right of large willow tree in middle distance. Most of area in foreground, middle and central far distance, to left of fence is the 70-80 acres claimed as pasture grasses or hay on the two proof maps; the former springs filed under V-02846 would commence just north of the middle willow tree. Much of central and western claimed POU per the 2013 amended proof map was cleared and brush-hogged in March, 2017; vegetation to immediate left of fence is mostly dry mustard weed where a wheat crop was attempted in 2016. The flow measurement site for the Telegraph Canyon ditch (V-02845) and Photo 2 is located just out of view in lower right corner of photo.



Photo 2 – Telegraph Canyon ditch (V-02845) flow measurement site and southern Cox Ranch, looking NW. A flow rate of 0.362 cfs (162 gpm) was determined using a 90° V-notch weir at 7 PM on 4/10/2017. The flow was similar on the morning of the subsequent day. However, inspection of the culvert crossing for the Telegraph Canyon ditch along the county road in May and early June showed no evidence of flow, and the sand and silt in the ditch were dry on most later visits in 2017.

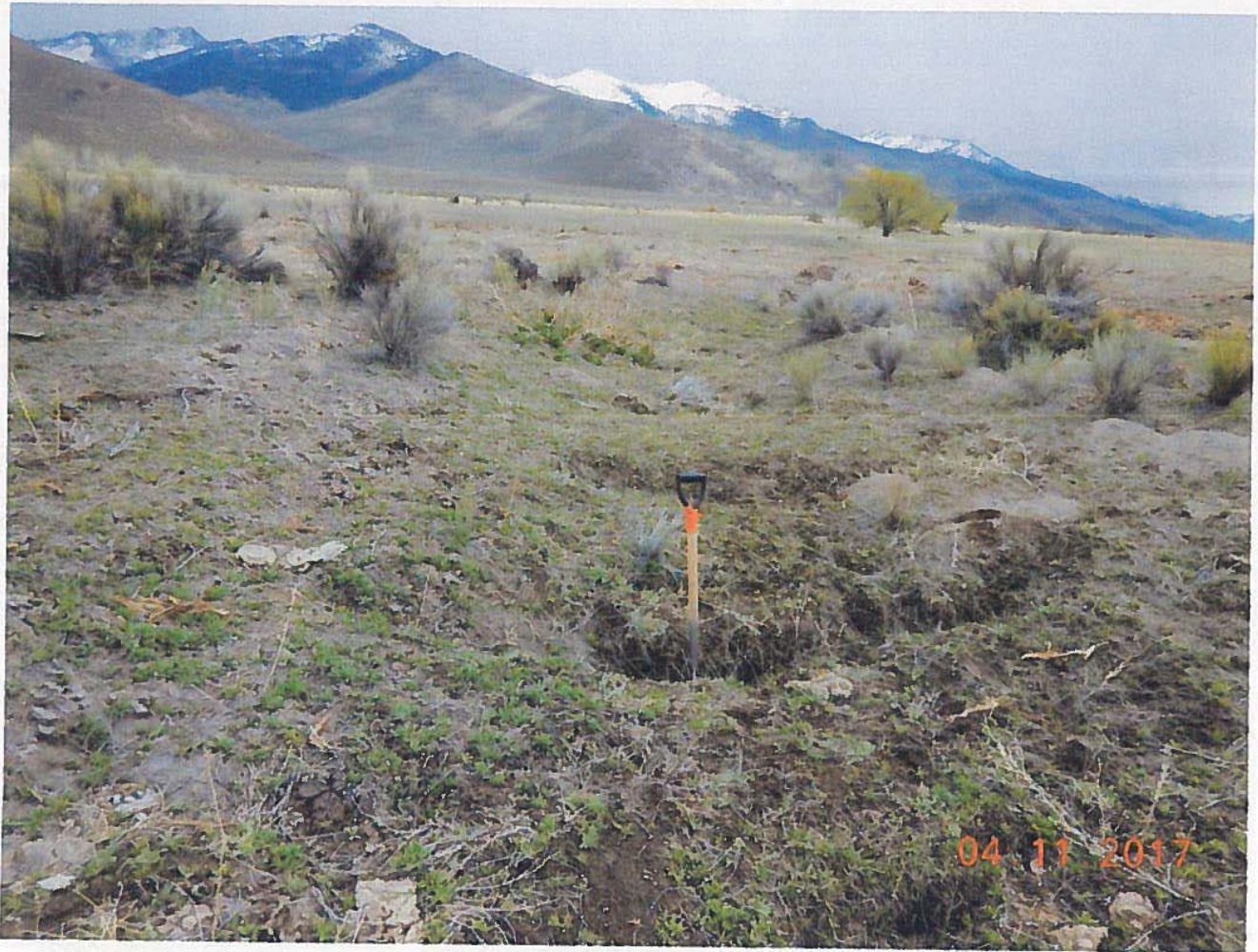


Photo 3 – Former spring area near southern claimed spring filed under V-02846, looking SE; the Cox Ranch ruins are in middle distance just left of large willow. Photo is taken in central portion of the area claimed as meadow grasses or hay. Note peat and organic-rich soil, and desiccation fissures, some of which extend 2-3 ft or more in depth. The former spring areas were not brush-hogged due to fissures and uneven topography. The Cox Ranch springs probably ceased flowing in the late 1970s, for similar reasons as the former springs (V-01115) on the adjacent Thompson Ranch, 1 mile to the south. Telegraph Canyon and part of its drainage area is in upper left corner of photo.



Photo 4 – Cox Canyon ditch at county road culvert, looking SSW; the claimed POD for V-02847 is located just to right of photo. No water flow was observed in the ditch in 2017, although on 4/11/2017 sand and silt in the ditch were moist. Ranch ruins and start of the POU are in upper left; the claimed POU is much of area in middle distance on lower side of fence, along break in slope. The greater area claimed as DP per the 2013 proof map, is located in distance behind and to right of willow trees. The small white object in upper right edge of photo houses an unpermitted stock well and former DWR wellnet site; the well was drilled under cancelled Permit 26794 (see Photo 7).

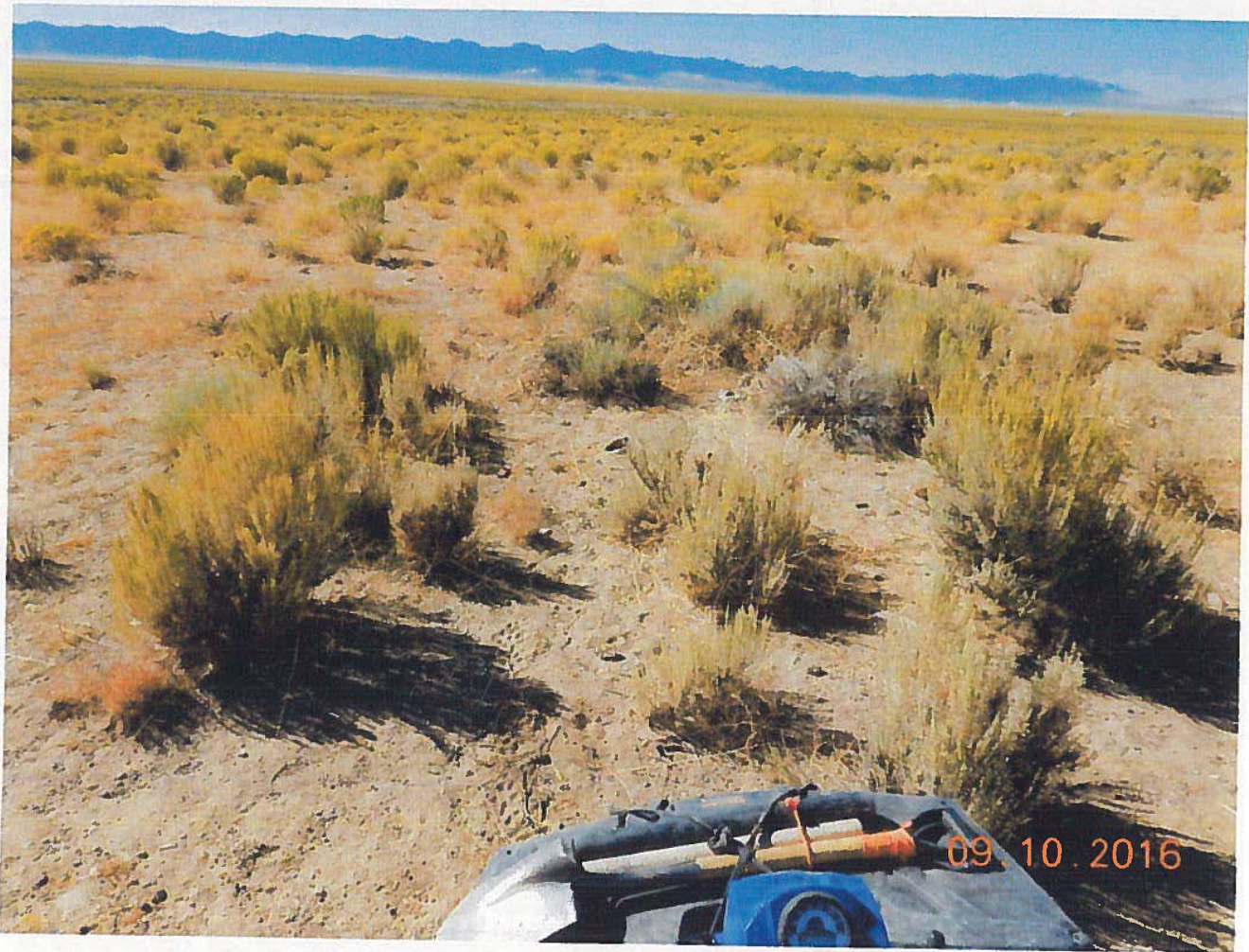


Photo 5 – Judd Canyon ditch at POD for V-10368 (Willow field) per the filed proof map, looking WNW. As can be readily seen, there is barely a channel or ditch at this location. The claimed commingled spring(s) is located ~200 yds to the northwest of this point, or in the center, middle distance with the claimed POU extending outward to the north and west from there. The small white object in the upper right corner of photo are large stock tanks associated with an unpermitted well drilled under well log 91291 (see Photo 8).



Photo 6 – Channel from unnamed canyon ~½ mile north of Judd Canyon at county road crossing, looking SW. A bulldozed ditch from Judd Canyon attempts to convey water northwest into this drainage channel, but as can be seen there is rarely any flow that reaches this location. The southern portion of the claimed POU for V-10368 and Willow field begins at the break in slope in the middle distance, and extends for ~½ mile to the west.

OTHER MISCELLANEOUS WORK

Unpermitted Stock Well & Permit 26794 – An unpermitted 16” cased well is being used for stockwatering purposes in the NW¼ SE¼ Section 34, ~600 yards NNW of the Cox Ranch ruins (Photo 7). There is a small 8 ft by 12 ft wellhouse covering the well and pressure tanks. This is likely the well drilled under cancelled irrigation Permit 26794, filed by Ted Thompson in 1972. This is also former DWR wellnet site 153 24N 54E 34BAC. There is a power drop and on September 10, 2016, the well was being pumped at a continuous rate of 12 gpm or more. The site was dropped from the Diamond Valley wellnet reportedly due to access problems or disagreements with the former ranch owner (Milt Thompson), but with new ranch ownership the site should be re-established. A photo taken on April 30, 1982 by DWR personnel indicate the well was artesian then, and flowing at several gpm or more. The coordinates and location of the site are incorrect in DWR’s database; the actual location is: N39.91877°/W115.87445° (NAD83), Elevation 5,825 ft.

Unpermitted Stock Well, Log 91291 – An unpermitted 6” stock well is located just north of the Willow Field in the NW¼ NW¼ Section 22. According to log #91291, Noble Energy drilled the well in 2003 under waiver OG-220. The log states static water was at 4 ft, and described as “warm”. The well is equipped with a submersible and small gas generator, which pump to several large white water tanks (Photo 8). The well should be added to the Diamond Valley wellnet.



Photo 7 – Unpermitted stockwell, cancelled Permit 26794, Cox Ranch, looking NW.

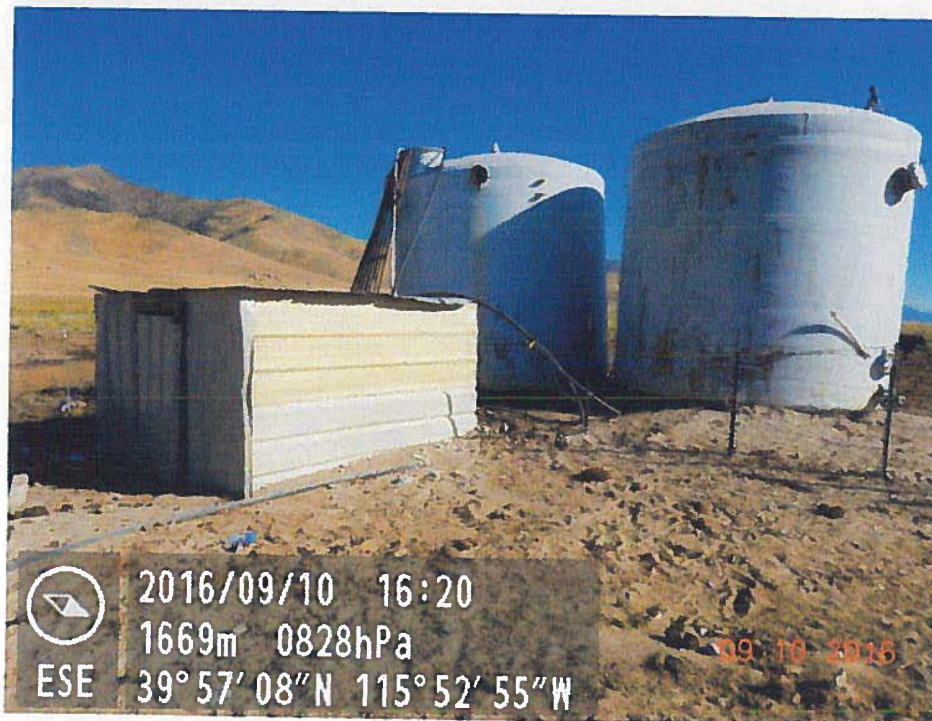


Photo 8 – Unpermitted stockwell, Log 91291, near Willow Field, looking SE.

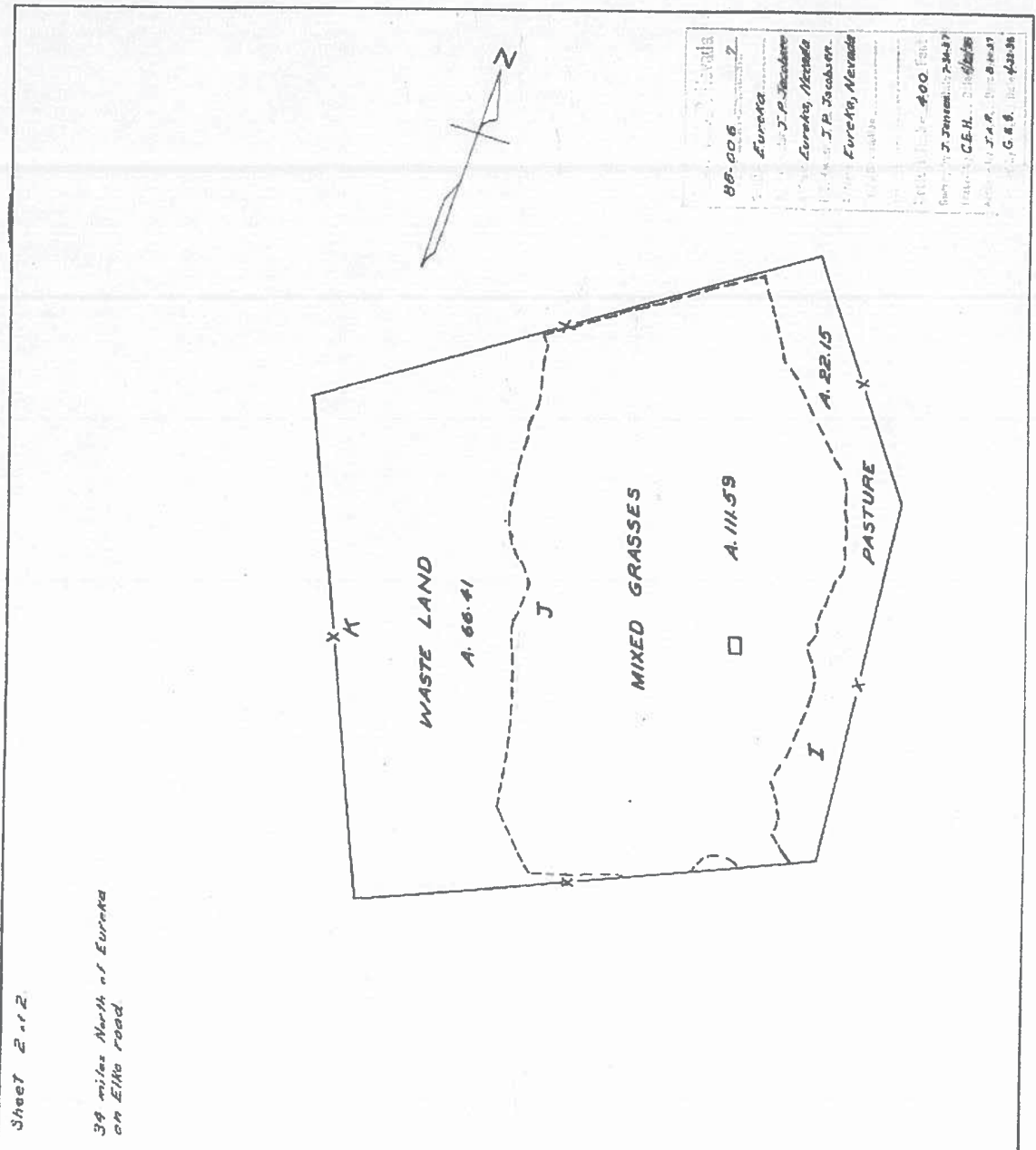


Figure 6 – 1938 ACP culture map for the Willow Field, V-10368; see report text for discussion.