

<u>EVIDENCE</u>: (con't)

37.08 chs. -- Left bank of Yellowstone River where I set a granite stone ... for meander cor. to frac. Secs. 22 and 23 ...

54.10 chs. -- Wagon road to Park, course E. and W. 68.38 chs. -- Intersect N. boundary of Yellowstone National Park ... at which point I set a granite stone ... for witness cor. on N. boundary of Park, marked W.C.N.P. ...)

The "Map of Gardiner Cemetery" on record in the office of the Park County Clerk & Recorder, dated 27 February 1905 and filed on 15 March 1905, shows the " $\frac{1}{4}$  cor. bet. secs. 22-23 T.9 S. R.8 E." to bear S85° 04'E, 1152.6' from the N.E. cor. of the cemetery tract.

(1933 GLO RETRACEMENT RECORD: From the closing cor. of secs. 22 and 23 ... N.0°10'E. bet. secs. 22 and 23, on a true line to a flag on the  $\frac{1}{4}$  sec. cor.

0.26 chs.-- The witness cor. of secs. 22 and 23, which is a granite stone, 10 x 10 x 5 ins., loosely set in a mound of stone; marked and witness as described in the official record.

15.70 chs. -- Road, bears N.10°W. and S.10°E.

29.76 chs. -- The  $\frac{1}{4}$  sec. cor., which is a sand stone, 8 x 6 x 4 ins., set in a mound of stone along an old fence line; marked as described in the official record. I set the stone 6 ins. in the ground and raised a mound of stone, 3 ft. base, 2 ft. high, W. of cor. 32.68 chs. -- No trace of the original meander cor. of secs. 22 and 23 on

32.68 chs.-- No trace of the original meander cor. of secs. 22 and 23 on left bank of Yellowstone River was found. After completing this line across the river this point was found to be the true point for the meander cor. of secs. 22 and 23, therefore it is reestablished at this point.

37.26 chs.-- The meander cor. of secs. 22 and 23 on right bank of Yellowstone River, which is a granite stone,  $10 \times 6 \times 6$  ins. above ground, marked and witnessed as described in the official record.)

Although the approved field note record of the original 1883 GLO survey of Secs. 22 and 23 received by me from the Billings BLM District Land Office contains no reference to the establishment of this corner, the subsequent field note record of a 1933 GLO retracement survey along this line calls for a found quarter-section corner stone monument "marked as described in the official record." I found no other intervening survey record for this line in the District Land Office to explain the 1933 reference to corner information of GLO record.

Either the 1933 GLO surveyor was erroneous in his recital, or he had access to information of record not currently available from the District Land Office. Recognizing that the US Surveyor-General for Montana made three official copies of the original field note returns of the 1883 survey, and that the copy now on file in the Billings District Land Office may have been flawed by an accidental omission of an entry for this corner, I contacted the BLM Eastern States Office to request that the Billings office record of the 1883 survey of this line be compared with the field note record on file in the Washington depository. In a letter dated 24 May 1983, the BLM notified me that the two field note records had been compared and found identical.

The marked stone found by me had long been known and accepted by local surveyors as the true quarter-section corner by common report, and was undoubtedly the monument found, noted and accepted during the 1933 GLO retracement survey. The earliest record evidence I found is the 1905 Gardiner cemetery plat tie cited above, although no physical monument is described on that plat. In 1933, the GLO surveyor retraced the Gardiner cemetery boundary, and reported the marked stone quarter-section corner to bear S86° 49'E, 17.46 chains (1152.36') from his remonumented N.E. cemetery corner, remarkably close in distance to the 1905 plat record tie. As there is no terrain feature that would have prevented the establish-

As there is no terrain feature that would have prevented the establishment of this corner in 1883, its omission from the field note record remains a mystery. Through the National Archives in Washington, D.C., I procured and examined the "Special Instructions" prepared by the US Surveyor-General for Montana for the execution of the 1883 survey, and found nothing to justify or explain the absence of an entry for this corner. Furthermore, a quarter-section corner point is shown on the 1883 fractional township plat prepared from the survey field note record. I found this stone to be marked in the same style as other quarter-

I found this stone to be marked in the same style as other quartersection corner monuments recovered by me from this 1883 survey, and the ancient, partly-buried stone mound I found around this stone is identical to mounds found by me at other corner monuments from this survey.

(CONTINUED ON SIDE ONE, SHEET 2 of 2)

SIDE TWO

	CERTIFIE	D LA	ND CORNER	RECORDATION	- 311/E - 47/0
Quarter-section	corner common	to	Sec. 22 &	23, T9S R8E,	PMM

EVIDENCE: (con't)

Although this evidence would seem to indicate that the found marked stone was probably set in the 1883 survey as the quarter-section corner monument, but inexplicably omitted from the approved field note record, can the found stone be accepted by the private surveyor as the true corner location in the absence of any original record? Disregarding the other evidence of its origin and past use, this monument/should be accepted if it occupied a location in harmony with the 1883 GLO plat and field note record.

The 1883 field note record called for a meander cor. mon. set on the right (north) bank of the river at 32.50 chs. south of the cor. to Secs. 14, 15, 22 and 23; another meander cor. mon. set on the left (south) bank at 37.08 chs.; a wagon road to the Park at 54.10 chs.; and the "witness cor." mon. for Secs. 22 and 23 set at 68.38 chs. The 1883 GLO plat lottings in Secs. 22 and 23 indicate the quarter-section cor. to be located at 40.00 chs. south from the cor. to Secs. 14, 15, 22 and 23. Therefore, by government plat the quarter-section cor. is 2.92 chs. (192.72') south of the south bank meander cor., and 28.38 chs. (1873.08') north of the "witness cor." on the Park boundary.

I recovered the mons. for the south bank meander cor. (restored at the 1883 location by the GLO in 1933) and the "witness cor." (occupied by the 1883 marked stone), and measured the distance between them to be 32.41 chs. (2138.87'), 1.11 chs. (73.07') in excess of the 1883 field note record. Ialso measured the found quarter-section stone monument to be 2.91 chs. (192.19') from the south bank meander cor. mon. (only one link short of the plat record), and 29.50 chs. (1946.68') from the "witness cor." mon., 1.12 chs. (73.60') longer than the 1883 record. If the 1.11 ch. excess found by me between the south bank meander cor. and the "witness cor." can not be shown to be the result of a measurement blunder at an identifiable point or segment of the 1883 survey line between the river and the original Park or segment of the 1883 survey line between the river and the original Park boundary, it must be assumed to be an incremental "index" error in the original survey and distributed proportionally by resurvey along the entire course. By the latter method, the proportionate quarter-section corner point would be located at 3.023 chs. (199.54') from the south bank meander cor., ten links over the plat record, and 29.384 chs. (1939.33') from the

"witness cor.", one chain (66.25') over the plat record. However, my retracement of the 1883 terrain call for the "Wagon Road to Park" indicates an 1883 measurement blunder did apparently occur between this road and the "witness cor." set on the original Park boundary. The 1883 field note record called for this road at 17.02 chs. (1123.32') from the south bank meander cor, and 14.28 chs. (942.48') from the "witness cor." The 1933 GLO field note record called for a "Road" at 16.98 chs. (1120.68') from the south bank meander cor. (only four links over the 1883 record) and 15.44 chs. (1019.04') from the "witness cor." (1.16 chs. over the original record). I measured the center line of the existing county road to cross the section line at 16.99 chs. (1121.12') from the south bank meander cor., only three links short of the 1883 record and one link short of the 1933 record; and 15.42 chs. (1017.75') from the "witness cor.", 1.14 chs. (75.27') longer than the 1883 record, but only two links (1.24') short of the 1933 record. These findings would indicate that there has been no appreciable change in the location of the road at this intersection since 1883, and an examination of the adjacent sterrain and the Park County road records failed to disclose any evidence to the contrary.

I concluded from this analysis that a one chain blunder in measurement had occurred between the road and the Park boundary during the 1883 survey, which therefore must be isolated to that portion of the original line, and the three link difference between my remeasurement of the line from the river to the road and the original record should be distributed proportionally along that respective segment. By the latter method, the calcu-lated quarter-section cor. point falls at 2.91 chs. (192.34') from the south bank meander cor., less than one link (0.15') from the found marked stone monument. This close agreement confirmed the monument location, and

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SHEET 2 OF 2 SIDE ONE

т. . . Ц. 1 Н EVIDENCE: (con't) I therefore accepted the marked stone as occupying the true quarter-section I therefore accepted the marked stone as occupying the true quarter-section corner location. MONUMENTATION: (con't) - cor. No: 1 of the Gardiner Cemetery retracement survey by the GLO in 1933, a found 1" diam. pipe firmily set upright in the ground, protruding 13" aboveground and fitted with a 2½" diam. GLO brass cap stamped T9S R8E COR 1 S22 COR 1 S2 COR 1 COR 1 S2 COR 1 S2 COR 1 S2 COR 1 C about 1/2 easterly of the new corner monument. 1. 1. 1. ....

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