Geological Survey of Wyoming
Mineral Report 90-1

Gold and Mercury in the Red Desert Basin

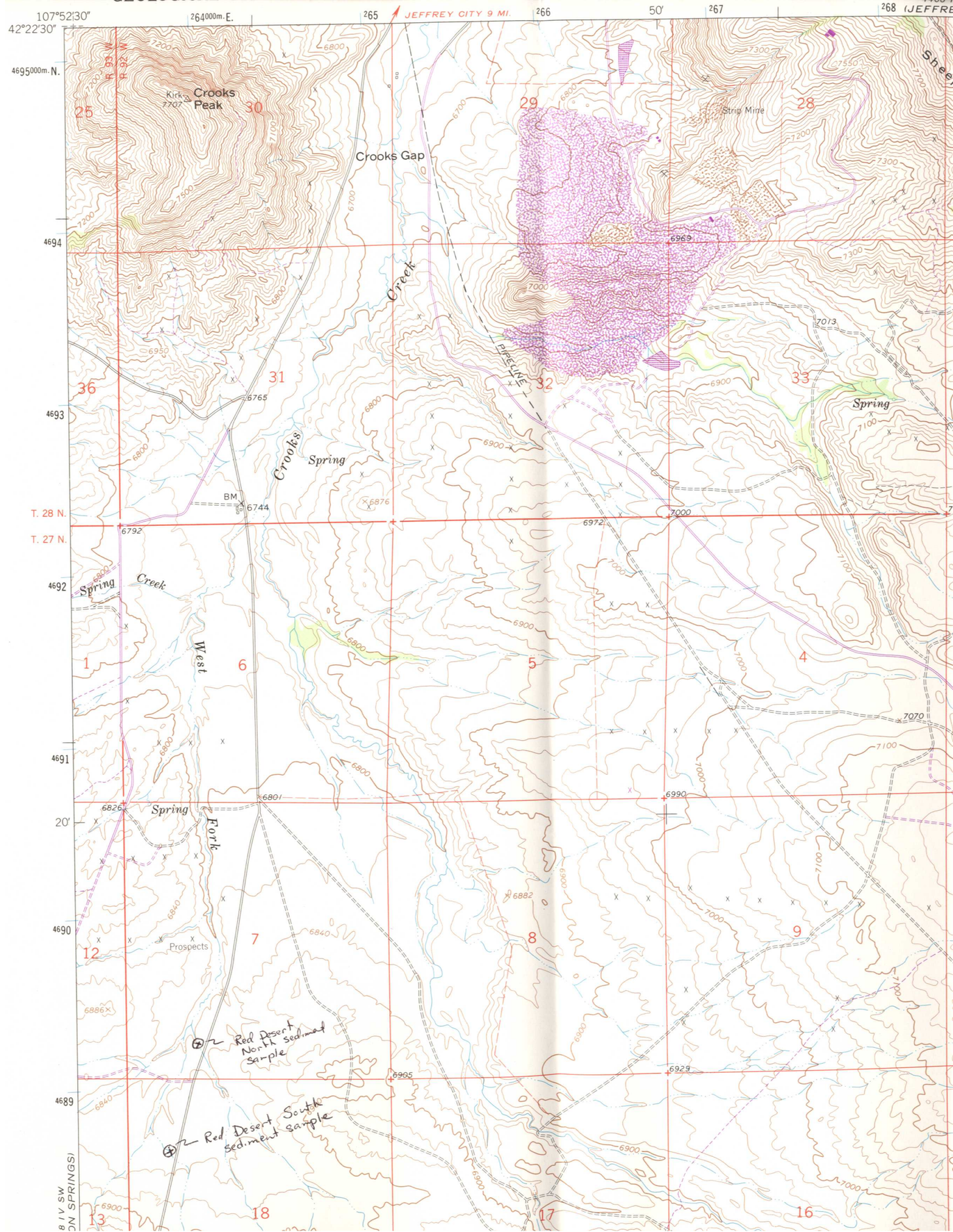
by

W. Dan Hausel
1990

Some unusual gold anomalies have been reported in the Red Desert Basin south of Crooks Gap. For example, Albert (1986) identified NURE samples collected in the basin to assay as high as 6.55 ppm gold.

These anomalies recently attracted Hank Hudspeth's attention (prospector from Lander) and led him to collect sediment samples on Osborne and Eagle Creeks between Jeffry City and Wamsutter. The sample from Osborne Creek contained anomalous gold, mercury, and cinnabar; and the Eagle Creek sample contained some mercury (Hank Hudspeth, personal communication, May 1989).

Out of curiosity, I drove south of Jeffry City and collected two sediment samples on the West Fork of Crooks Creek. Each sample was collected within one foot of the surface in the poorly developed drainages, and consisted of fairly clean, unconsolidated sand. One 5 by 10 inch sample bag of sand was taken at each location, and later concentrated on the Survey's Wilfley Table. Sample Red Desert North contained no detectable gold, but the concentrate from sample Red Desert South contained 2.4 ppm gold.


107°52'30"
42°22'30"
264000m. E.
265
JEFFREY CITY 9 MI.
266
50'
267
268 (JEFFRE
4695000m. N.
Kirk
7707
Crooks Peak
30
29
28
25
Crooks Gap
Strip Mine
6969
7013
Creek
PIPELINE
31
32
33
36
6765
Spring
4694
4693
Crooks
Spring
BM
6744
6876
6792
6972
7000
T. 28 N.
T. 27 N.
4692
Spring
Creek
West
Fork
1
6
5
4
7070
4691
6801
6826
Spring
20'
6882
6990
4690
Prospects
12
7
8
9
6886
Red Desert North sediment sample
6905
6929
4689
Red Desert South sediment sample
13
18
17
16
(SPRINGS)

Serving Wyoming Since 1933

THE GEOLOGICAL SURVEY OF WYOMING
UNIVERSITY OF WYOMING
BOX 3008, UNIVERSITY STATION
LARAMIE, WYOMING 82071
(307) 742-2054 (307) 721-3920 (307) 766-2286

LABORATORY REPORT

Client Sample No.: Red Desert North
Red Desert South

GSW Lab No.: 890804

Client:

Sample Description:

unsorted sand/silt

Analyses Requested: Au, Ag, Hg

Methods & Results:

1) Coarse grind, split, concentrate heavy fraction on Wilfley Table:

Red Desert North: Heavies = 2.34 % of total
Red Desert South: Heavies = 2.36 % of total

no Au or Hg seen in either concentrate

2) Analyse whole rock (WR) and table concentrates (WT) for Au and Ag by AAS:

		Au, ppm	Ag, ppm
Red Desert North	WR	nd	nd
	WT	nd	nd
Red Desert South	WR	nd	nd
	WT	2.4	nd

nd = not detected; Au less than 0.05 ppm
Ag less than 1.0 ppm

Analyst: Jay Roberts Date: September 26, 1989

Excess Sample: __returned __discarded X store 6 months, discard __store perm

GSW Lab No.: 890804