UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Principal facts for gravity stations in the South Absaroka Wilderness, Wyoming

by

Carl L. Long

Open-File Report 82-1034

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STUDIES RELATED TO WILDERNESS

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal Lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a geophysical survey of the South Absaroka Wilderness, and several areas contiguous to the North and South Absaroka Wilderness. Areas are in the Shoshone National Forest, Park County, Wyoming. The U.S. Forest Service has proposed to combine the South Absaroka Wilderness, the Stratified Primitive Area, and the DuNoir Addition into a single entity called the Washakie Wilderness.

Introduction

During the summer of 1977, 162 gravity stations were established in the South Absaroka Wilderness and areas contiguous to the North and South Absaroka Wildernesses, Park County, Wyoming (Fig. 1). These data were collected as part of the U.S. Geological Survey's (USGS) ongoing program to evaluate the oil, gas, and mineral-resource potential of wilderness areas.

Data Collection

Gravity observations were made using LaCoste-Romberg meter G-17. The gravity stations were established using motor vehicle and helicopter. These stations were referenced to base station ACIC 1651-1 of the International Gravity Standardization Net, 1971 (Defense Mapping Agency Aerospace Center, 1974) at Cody, Wyoming. Gravity loops were closed daily using a temporary base, that was established near the working area and was tied to the Cody base station. The Cody base description is given in appendix A.

The vertical and horizontal positions of the stations are from the locations of benchmarks, spot elevations, and section corners found on USGS topographic maps at scales of 1:24,000 and 1:62,500.

Data Reduction

The principal facts and terrain-corrected gravity values were reduced by computer programs existing on the USGS Honeywell Multics computer system. The program "gravity_red" written by D. Dansereau and R. Wahl (USGS, unpublished program, 1979) was used to reduce gravity meter readings to observed gravity values by calculating and correcting for earth-tide and linear meter drift, the program also computes free-air and simple-Bouguer anomaly values. The observed gravity values are based on the International Gravity Standardization Net 1971 base values, and the theoretical gravity value was calculated using the 1967 formula of the Geodetic Reference System (International Association of Geodesy, 1967).

Complete terrain corrections from zone 2.615 km to 167 km were computed using a program "bouguer" by R. H. Godson (USGS, unpublished program 1978), which uses the method of Plouff (1977). Terrain corrections for zones A through H were computed by hand template (Hammer, 1939). An assumed density of 2.67 g/cm^3 was used to calculate all terrain corrections. The program "bouguer" also calculates earth curvature corrections and two complete (terrain-corrected) Bouguer anomaly values per station, which are listed in Appendix B.

References

Defense Mapping Agency Aerospace Center, 1974, World relative gravity reference network, North America, Part 2: DMAAC Ref. Pub. no. 25, with supplement updating gravity values to the International Gravity Standardization Net 1971, 1635 p.

Hammer, S. L., 1939, Terrain corrections for gravimeter stations: Geophysics, v. 4, p. 184-194.

International Association of Geodesy, 1967, Geodetic reference system, 1967: International Association of Geodesy Spec. Pub. no. 3, 74 p.

Plouff, D., 1977, Preliminary documentation for a FORTRAN program to compute gravity terrain corrections based on topography digitized on a geographic grid: U.S. Geological Survey Open-File Report 77-535.

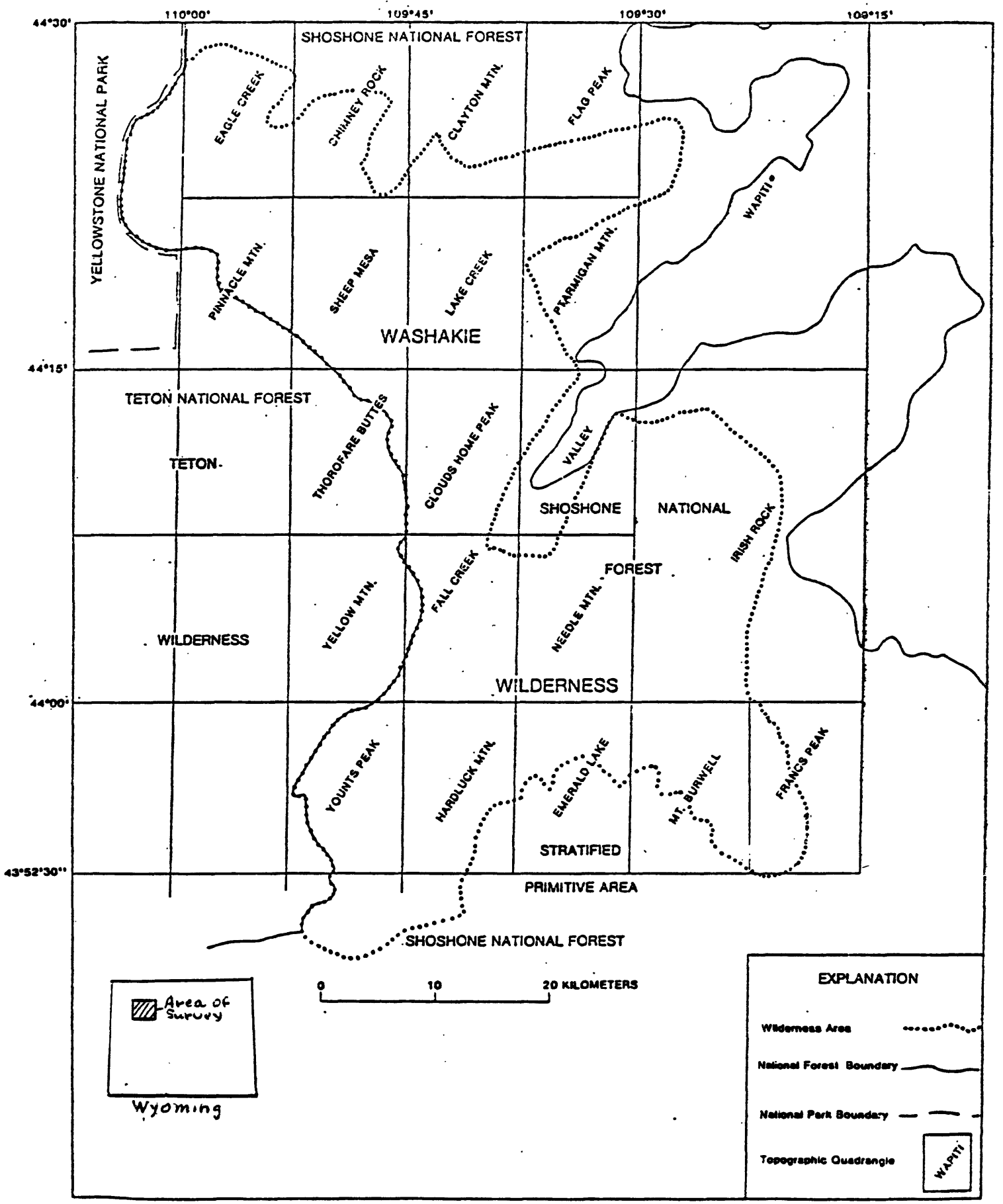


Figure 1. Location map of gravity survey for the South Absaroka Wilderness and study areas contiguous to the North and South Absaroka Wilderness Areas.

GRAVITY BASE STATION

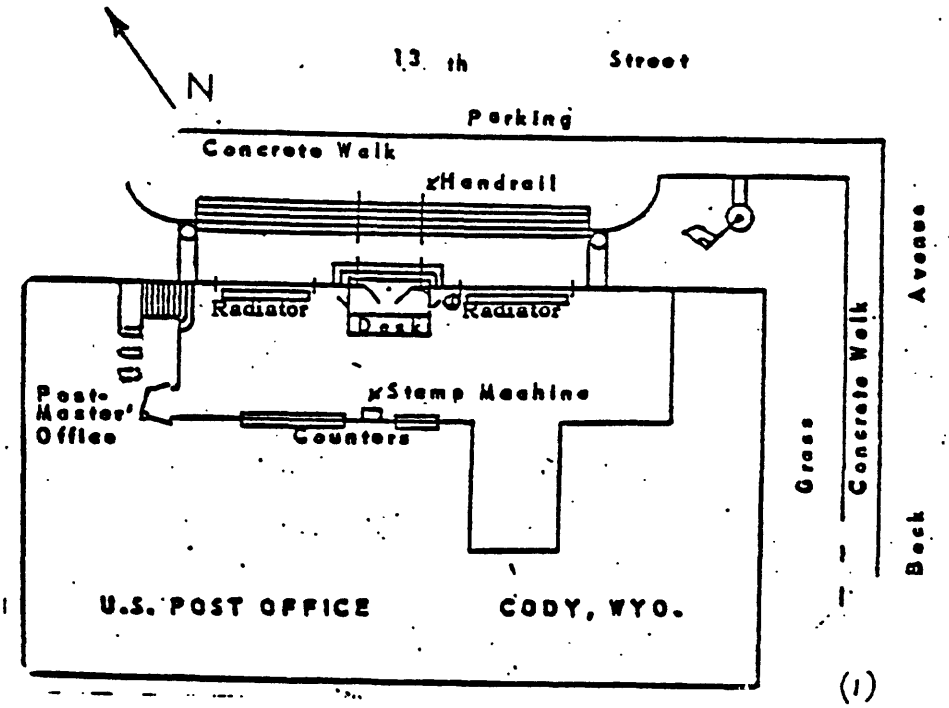
LATITUDE: 44° 32.00'N (1)	STATION DESIGNATION: CODY
LONGITUDE: 109° 03.00'W (1)	
ELEVATION: 1527 METERS (1)	COUNTRY/STATE: USA/Wyoming

REFERENCE CODE NUMBERS	ADOPTED GRAVITY VALUE
ACIC 1651-1	g= 980 063.51 mgals
IGB 15549B	

ESTIMATED ACCURACY	DATE
± 0.1 mgals	MONTH/YEAR: 1971

DESCRIPTION AND/OR SKETCH

The station is in Cody on 13th street between Beck Ave and Sheridan Ave at the U.S. Post Office--a two story brick building; in the main lobby against the northeast (front) wall, at the southern of two windows, at the north end of the window and radiator, on the Terrazo floor. The station is monumented with a brass disk inscribed "USAF GRAVITY STATION". (Described, Oct 1966.) (1)



(1)

REFERENCE SOURCE

(1) 05110

Appendix B: Principal Facts of Gravity Data

Explanation of headings

Identification	
proj	Project name.
sta id	Gravity identification.
Location	
latitude	North latitude in degrees, minutes and hundredths of minutes.
longitude	West longitude in degrees, minutes, and hundredths of minutes.
ele	Station elevation in feet.
st	State where station is located.
Gravity	
observed	Observed gravity in milligals.
theoretical	Theoretical gravity.
Corrections	
terrain	Terrain correction out to 166.7 km in milligals.
Bouguer	Elevation correction in milligals.
curv	Curvature correction in milligals.
special	Not used.
Anomalies	
free-air	Free-air anomaly in milligals.
complete-Bouguer	Complete Bouguer anomaly in milligals for designated densities.
spec fields	Not used.

SOUTH ABSAROKA WILDERNESS GRAVITY
CARL LONG

Meter ID: o-17 Date: 07/19/79

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.00
wildns:	WSH001	43	58.27	-109	36.00	11400.0	WY	979611.00	980525.95	13.26	-388.82	-0.82	0.00	156.33	-220.06	-125.61
wildns:	WSH002	43	58.52	-109	37.58	10320.0	WY	979683.68	980526.33	6.65	-351.99	-1.11	0.00	127.22	-219.23	-132.29
wildns:	WSH003	44	17.50	-109	39.50	11646.0	WY	979623.48	980554.95	27.75	-397.21	-0.75	0.00	162.91	-207.30	-114.40
wildns:	WSH004	44	17.05	-109	40.83	10935.0	WY	979680.11	980554.27	14.41	-372.96	-0.96	0.00	153.45	-206.05	-115.84
wildns:	WSH005	44	16.06	-109	41.74	11470.0	WY	979639.01	980552.77	22.01	-391.21	-0.80	0.00	164.08	-205.92	-113.07
wildns:	WSH007	44	3.22	-109	40.53	11467.0	WY	979610.02	980533.41	36.44	-391.11	-0.80	0.00	154.18	-201.29	-112.09
wildns:	WSH008	44	4.14	-109	42.47	11465.0	WY	979617.06	980534.80	17.92	-391.04	-0.80	0.00	159.64	-214.28	-120.45
wildns:	WSH009	44	2.95	-109	43.39	11843.0	WY	979582.81	980533.01	25.25	-403.93	-0.68	0.00	162.68	-216.68	-121.49
wildns:	WSH010	44	4.89	-109	41.00	11908.0	WY	979577.81	980535.94	37.23	-406.15	-0.66	0.00	160.86	-208.72	-115.98
wildns:	WSH011	44	7.30	-109	44.27	10020.0	WY	979723.72	980539.57	7.59	-341.75	-1.18	0.00	125.84	-209.50	-125.35
wildns:	WSH012	44	11.64	-109	39.35	10752.0	WY	979677.48	980546.11	18.97	-366.72	-1.00	0.00	141.80	-206.95	-119.44
wildns:	WSH014	44	12.53	-109	33.28	6234.0	WY	979964.89	980547.45	10.51	-212.62	-1.51	0.00	3.47	-200.15	-149.05
wildns:	WSH015	44	15.94	-109	28.58	6396.0	WY	979969.45	980552.59	7.17	-218.15	-1.51	0.00	18.11	-194.38	-141.05
wildns:	WSH016	44	19.52	-109	23.92	5908.0	WY	980010.85	980557.99	5.69	-201.51	-1.49	0.00	8.26	-189.05	-139.53
wildns:	WSH017	44	21.26	-109	20.09	5866.0	WY	980016.86	980560.62	4.14	-200.07	-1.49	0.00	7.70	-189.72	-140.18
wildns:	WSH018	44	21.75	-109	19.23	5805.0	WY	980021.72	980561.35	4.07	-197.99	-1.48	0.00	6.08	-189.32	-140.29
wildns:	WSH019	44	22.65	-109	18.32	5680.0	WY	980031.72	980562.71	3.85	-193.73	-1.48	0.00	2.98	-188.37	-140.36
wildns:	WSH020	44	23.32	-109	17.60	5644.0	WY	980033.76	980563.72	3.35	-192.50	-1.47	0.00	0.63	-190.00	-142.16
wildns:	WSH021	44	24.55	-109	16.01	5486.0	WY	980044.73	980565.58	3.29	-187.11	-1.46	0.00	-5.10	-190.38	-143.89
wildns:	WSH022	44	26.00	-109	15.07	5414.0	WY	980049.35	980567.77	2.81	-184.66	-1.45	0.00	-9.43	-192.74	-146.74

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Meter ID: g-17 Date: 07/19/79

STATION IDENTIFICATION		LOCATIONS					GRAVITY		CORRECTIONS				ANOMALIES	
		LATITUDE		LONGITUDE		ST	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER d1=2.67 d2=2.00
proj	sta-id	deg	min	deg	min	(in ft)								
wildns:	WSH023	44	25.91	-109	14.33	5427.0 WY	980048.09	980567.63	2.14	-185.10	-1.46	0.00	-9.34	-193.75 -147.47
wildns:	WSH024	44	26.68	-109	11.89	5459.0 WY	980044.75	980568.79	1.47	-186.19	-1.46	0.00	-10.83	-197.01 -150.29
wildns:	WSH025	44	27.40	-109	10.03	5406.0 WY	980046.97	980569.88	1.41	-184.38	-1.45	0.00	-14.68	-199.11 -152.83
wildns:	WSH026	44	28.06	-109	8.04	5393.0 WY	980047.01	980570.87	1.79	-183.94	-1.45	0.00	-16.86	-200.46 -154.39
wildns:	WSH027	44	28.95	-109	6.15	5220.0 WY	980057.09	980572.21	1.56	-178.04	-1.44	0.00	-24.37	-202.29 -157.64
wildns:	WSH028	44	30.88	-109	5.97	5058.0 WY	980066.83	980575.13	1.88	-172.51	-1.42	0.00	-32.77	-204.83 -161.65
wildns:	WSH029	44	24.03	-109	10.60	5917.0 WY	980014.84	980564.80	1.63	-201.81	-1.49	0.00	6.29	-195.38 -144.77
wildns:	WSH030	44	25.78	-109	7.68	5555.0 WY	980035.58	980567.43	1.12	-189.46	-1.47	0.00	-9.63	-199.44 -151.81
wildns:	WSH031	44	29.60	-109	1.40	5163.0 WY	980051.18	980573.20	0.60	-176.09	-1.43	0.00	-36.63	-213.55 -169.15
wildns:	WSH032	44	27.18	-109	0.92	5262.0 WY	980045.39	980569.55	0.59	-179.47	-1.44	0.00	-29.46	-209.78 -164.53
wildns:	WSH033	44	24.30	-109	0.15	5496.0 WY	980032.66	980565.20	0.68	-187.45	-1.46	0.00	-15.85	-204.09 -156.85
wildns:	WSH034	44	24.90	-109	4.55	5495.0 WY	980035.86	980566.10	1.11	-187.42	-1.46	0.00	-13.66	-201.43 -154.31
wildns:	WSH035	44	21.27	-109	6.48	6278.0 WY	979989.58	980560.63	2.04	-214.12	-1.51	0.00	19.11	-194.48 -140.88
wildns:	WSH036	44	18.38	-109	5.30	6244.0 WY	979984.48	980556.27	2.45	-212.96	-1.51	0.00	15.18	-196.84 -143.63
wildns:	WSH038	43	55.70	-109	37.89	10875.0 WY	979628.00	980522.08	9.40	-370.91	-0.97	0.00	127.91	-234.58 -143.62
wildns:	WSH039	43	50.22	-109	51.03	11370.0 WY	979562.92	980513.82	14.67	-387.80	-0.83	0.00	137.57	-236.39 -142.55
wildns:	WSH040	43	47.25	-109	45.37	11852.0 WY	979538.90	980509.34	19.57	-404.24	-0.68	0.00	143.28	-242.07 -145.37
wildns:	WSH041	43	49.22	-109	45.84	11391.0 WY	979575.32	980512.31	13.25	-388.51	-0.83	0.00	133.45	-242.64 -148.27
wildns:	WSH042	43	52.04	-109	47.57	10614.0 WY	979614.73	980516.56	14.27	-362.01	-1.04	0.00	95.65	-253.13 -165.61
wildns:	WSH043	43	52.05	-109	51.87	10775.0 WY	979618.95	980516.58	10.41	-367.50	-1.00	0.00	114.97	-243.12 -153.26
wildns:	WSH044	43	53.67	-109	46.65	9954.0 WY	979674.46	980519.02	14.47	-339.50	-1.19	0.00	90.94	-235.29 -153.42
wildns:	WSH045	43	59.59	-109	47.07	11466.0 WY	979596.38	980527.95	21.62	-391.07	-0.80	0.00	145.92	-224.14 -131.28
wildns:	WSH046	44	1.54	-109	45.52	11694.0 WY	979584.56	980530.88	21.59	-398.85	-0.73	0.00	152.56	-225.43 -130.57
wildns:	WSH048	44	2.53	-109	38.58	6880.0 WY	979888.03	980532.38	26.58	-234.66	-1.52	0.00	2.39	-207.20 -154.61
wildns:	WSH049	43	50.46	-109	42.13	11793.0 WY	979538.35	980514.19	23.90	-402.23	-0.70	0.00	132.36	-246.67 -151.56
wildns:	WSH050	43	49.39	-109	38.31	11705.0 WY	979551.88	980512.57	17.22	-399.22	-0.73	0.00	139.23	-243.50 -147.46
wildns:	WSH051	43	51.85	-109	38.27	11383.0 WY	979578.03	980516.28	17.43	-388.24	-0.83	0.00	131.44	-240.20 -146.94
wildns:	WSH052	43	52.21	-109	43.06	11099.0 WY	979586.11	980516.82	10.52	-378.56	-0.91	0.00	112.31	-256.63 -164.05
wildns:	WSH053	43	54.02	-109	42.27	11282.0 WY	979582.70	980519.55	19.86	-384.80	-0.86	0.00	123.36	-242.44 -150.65
wildns:	WSH054	43	54.20	-109	39.19	11687.0 WY	979563.01	980519.82	17.08	-398.61	-0.73	0.00	141.42	-240.84 -144.92
wildns:	WSH055	44	0.07	-109	36.81	12010.0 WY	979565.92	980528.67	31.12	-409.63	-0.63	0.00	165.81	-213.32 -118.18
wildns:	WSH056	44	3.95	-109	36.97	12106.0 WY	979559.92	980534.52	44.04	-412.90	-0.59	0.00	162.97	-206.48 -113.77
wildns:	WSH057	44	30.95	-109	11.00	5402.0 WY	980041.69	980575.23	14.18	-184.25	-1.45	0.00	-25.69	-197.21 -154.17
wildns:	WSH058	44	30.44	-109	15.93	5413.0 WY	980048.70	980574.46	4.28	-184.62	-1.45	0.00	-16.88	-198.67 -153.05
wildns:	WSH059	44	28.95	-109	22.30	5506.0 WY	980047.85	980572.21	4.98	-187.79	-1.46	0.00	-6.74	-191.02 -144.77
wildns:	WSH060	44	27.63	-109	31.58	5776.0 WY	980026.49	980570.22	8.61	-197.07	-1.48	0.00	-0.55	-190.49 -142.83
wildns:	WSH061	44	27.83	-109	35.17	5887.0 WY	980022.64	980570.52	7.05	-200.79	-1.49	0.00	5.54	-189.69 -140.70
wildns:	WSH062	44	28.03	-109	38.65	5972.0 WY	980012.62	980570.83	10.36	-203.69	-1.49	0.00	3.21	-191.62 -142.73
wildns:	WSH063	44	27.81	-109	42.68	6111.0 WY	980006.73	980570.49	7.90	-208.43	-1.50	0.00	10.71	-191.32 -140.62
wildns:	WSH064	44	27.21	-109	45.40	6234.0 WY	979988.18	980569.59	9.51	-212.62	-1.51	0.00	4.62	-200.00 -148.65

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Meter ID: g-17 Date: 07/19/79

STATION IDENTIFICATION		LOCATIONS LATITUDE		LONGITUDE		ELE	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.00
proj	sta-id	deg	min	deg	min	(in ft)										
wildns:	WSH065	44	27.26	-109	47.71	6290.0	WY	979979.06	980569.66	9.88	-214.53	-1.51	0.00	0.69	-205.47	-153.74
wildns:	WSH066	44	28.02	-109	52.10	6435.0	WY	979967.64	980570.81	10.27	-219.48	-1.51	0.00	1.75	-208.97	-156.10
wildns:	WSH067	44	28.83	-109	54.52	6555.0	WY	979961.71	980572.03	9.97	-223.57	-1.51	0.00	5.87	-209.25	-155.27
wildns:	WSH068	44	30.12	-109	57.85	6674.0	WY	979953.44	980573.98	9.24	-227.63	-1.52	0.00	6.84	-213.07	-157.89
wildns:	WSH069	44	1.03	-109	32.57	12048.0	WY	979569.73	980530.12	26.11	-410.92	-0.61	0.00	171.74	-213.68	-116.97
wildns:	WSH070	43	57.09	-109	28.46	12635.0	WY	979511.06	980524.18	32.52	-430.94	-0.40	0.00	174.12	-224.70	-124.62
wildns:	WSH071	43	54.25	-109	27.80	11514.0	WY	979586.31	980519.90	19.44	-392.71	-0.79	0.00	148.41	-225.65	-131.79
wildns:	WSH072	43	53.26	-109	22.79	12155.0	WY	979551.30	980518.41	21.84	-414.57	-0.58	0.00	175.07	-218.24	-119.55
wildns:	WSH073	43	56.03	-109	25.36	11517.0	WY	979600.37	980522.58	15.24	-392.81	-0.79	0.00	160.06	-218.30	-123.36
wildns:	WSH074	43	58.10	-109	24.34	10740.0	WY	979628.36	980525.70	18.40	-366.31	-1.01	0.00	111.97	-236.95	-149.39
wildns:	WSH075	43	58.95	-109	27.20	11880.0	WY	979555.50	980526.98	25.81	-405.19	-0.67	0.00	144.87	-235.18	-139.81
wildns:	WSH076	43	59.81	-109	32.28	12240.0	WY	979550.18	980528.27	28.12	-417.47	-0.55	0.00	172.05	-217.84	-120.00
wildns:	WSH077	43	55.34	-109	31.83	11169.0	WY	979613.50	980521.54	14.07	-380.94	-0.89	0.00	141.56	-226.21	-133.92
wildns:	WSH078	43	55.94	-109	35.35	11656.0	WY	979577.19	980522.45	17.97	-397.55	-0.74	0.00	150.07	-230.26	-134.82
wildns:	WSH079	43	54.13	-109	35.70	11690.0	WY	979565.09	980519.72	16.15	-398.71	-0.73	0.00	143.89	-239.40	-143.22
wildns:	WSH080	43	52.62	-109	32.88	11543.0	WY	979569.05	980517.44	27.91	-393.70	-0.78	0.00	136.32	-230.25	-138.26
wildns:	WSH081	44	14.87	-109	43.98	11619.0	WY	979620.49	980550.98	35.53	-396.29	-0.76	0.00	161.35	-200.17	-109.45
wildns:	WSH082	44	15.32	-109	43.33	11490.0	WY	979641.06	980551.66	23.48	-391.89	-0.80	0.00	169.13	-200.08	-107.43
wildns:	WSH083	44	18.66	-109	38.12	11700.0	WY	979598.41	980556.70	37.02	-399.05	-0.73	0.00	141.16	-221.60	-130.57
wildns:	WSH084	44	16.75	-109	37.90	10001.0	WY	979740.48	980553.81	12.57	-341.10	-1.18	0.00	126.57	-203.15	-120.41
wildns:	WSH085	44	13.27	-109	35.95	10290.0	WY	979704.22	980548.57	23.13	-350.96	-1.12	0.00	122.69	-206.25	-123.71
wildns:	WSH086	44	4.47	-109	45.73	10750.0	WY	979664.95	980535.30	10.52	-366.65	-1.01	0.00	139.90	-217.24	-127.62
wildns:	WSH087	44	6.69	-109	48.07	10309.0	WY	979696.11	980538.65	9.13	-351.61	-1.11	0.00	126.29	-217.30	-131.08
wildns:	WSH088	44	8.77	-109	48.06	10550.0	WY	979682.69	980541.78	11.48	-359.83	-1.06	0.00	132.37	-217.04	-129.36
wildns:	WSH089	44	11.23	-109	45.45	10235.0	WY	979714.75	980545.49	7.83	-349.09	-1.13	0.00	131.14	-211.25	-125.33
wildns:	WSH090	44	14.74	-109	46.80	11010.0	WY	979661.74	980550.78	20.29	-375.52	-0.94	0.00	145.61	-210.55	-121.18
wildns:	WSH091	44	10.51	-109	30.94	9630.0	WY	979747.24	980544.41	19.27	-328.45	-1.25	0.00	107.90	-202.54	-124.64
wildns:	WSH093	44	5.37	-109	3.30	6383.0	WY	979946.70	980536.66	1.64	-217.71	-1.51	0.00	10.08	-207.49	-152.90
wildns:	WSH094	44	6.50	-109	9.62	6730.0	WY	979929.34	980538.36	2.26	-229.54	-1.52	0.00	23.62	-205.17	-147.76
wildns:	WSH095	44	11.06	-109	17.06	9171.0	WY	979775.82	980545.23	9.83	-312.80	-1.33	0.00	92.54	-211.76	-135.40
wildns:	WSH096	44	16.28	-109	15.62	11301.0	WY	979641.01	980553.11	26.76	-385.44	-0.85	0.00	149.88	-209.66	-119.44
wildns:	WSH097	44	13.61	-109	16.62	10744.0	WY	979682.98	980549.08	11.55	-366.45	-1.01	0.00	143.58	-212.32	-123.01
wildns:	WSH098	44	20.32	-109	44.35	9770.0	WY	979748.26	980559.20	15.92	-333.23	-1.23	0.00	107.27	-211.27	-131.34
wildns:	WSH099	44	20.22	-109	47.80	12085.0	WY	979583.72	980559.05	37.48	-412.18	-0.60	0.00	160.26	-215.05	-120.87
wildns:	WSH100	44	17.58	-109	47.90	10340.0	WY	979715.50	980555.07	11.00	-352.67	-1.11	0.00	132.17	-210.60	-124.59
wildns:	WSH101	44	15.05	-109	46.47	10643.0	WY	979693.99	980551.25	11.75	-363.00	-1.03	0.00	142.93	-209.35	-120.95
wildns:	WSH102	44	12.93	-109	44.56	10667.0	WY	979685.63	980548.05	18.08	-363.82	-1.03	0.00	140.03	-206.74	-119.73
wildns:	WSH103	44	9.49	-109	44.22	10418.0	WY	979697.52	980542.67	9.54	-355.33	-1.09	0.00	133.72	-213.15	-126.11
wildns:	WSH104	44	9.03	-109	36.43	6405.0	WY	979946.77	980542.17	14.63	-218.46	-1.51	0.00	6.70	-198.64	-147.11
wildns:	WSH105	44	8.58	-109	35.79	6930.0	WY	979910.83	980541.50	14.97	-236.36	-1.52	0.00	20.76	-202.15	-146.21

CARL LONG

Meter ID: g-17 Date: 07/19/79

STATION IDENTIFICATION		LOCATIONS						GRAVITY		CORRECTIONS				ANOMALIES	
		LATITUDE		LONGITUDE		ELE	ST	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER d1=2.67 d2=2.00
proj	sta-id	deg	min	deg	min	(in ft)									
wildns:	WSH107	44	9.59	-109	37.17	6469.0	WY	979936.98	980543.02	18.82	-220.64	-1.51	0.00	2.08	-201.25 -150.23
wildns:	WSH109	44	9.20	-109	36.69	6360.0	WY	979947.35	980542.43	15.01	-216.92	-1.51	0.00	2.80	-200.63 -149.58
wildns:	WSH110	44	20.30	-110	1.99	10481.0	WY	979703.41	980559.17	29.58	-357.48	-1.07	0.00	129.22	-199.75 -117.19
wildns:	WSH111	44	23.43	-110	4.13	10937.0	WY	979668.43	980563.89	33.25	-373.03	-0.96	0.00	132.34	-208.40 -122.89
wildns:	WSH112	44	28.36	-109	58.88	10001.0	WY	979742.06	980571.32	19.77	-341.10	-1.18	0.00	110.64	-211.88 -130.95
wildns:	WSH113	44	23.72	-109	56.65	10503.0	WY	979705.69	980564.33	14.20	-358.23	-1.07	0.00	128.40	-216.69 -130.09
wildns:	WSH114	44	24.20	-109	49.27	10421.0	WY	979703.38	980565.05	26.00	-355.43	-1.09	0.00	117.68	-212.84 -129.90
wildns:	WSH115	44	23.03	-109	46.76	11019.0	WY	979654.61	980563.28	35.50	-375.83	-0.93	0.00	126.82	-214.44 -128.80
wildns:	WSH116	44	18.06	-109	54.25	11165.0	WY	979638.26	980555.79	31.18	-380.81	-0.89	0.00	131.68	-218.84 -130.88
wildns:	WSH117	44	21.03	-109	57.00	10798.0	WY	979677.61	980560.27	22.73	-368.29	-0.99	0.00	132.09	-214.47 -127.50
wildns:	WSH118	44	22.28	-109	59.78	7520.0	WY	979901.86	980562.16	8.22	-256.49	-1.50	0.00	46.57	-203.20 -140.52
wildns:	WSH119	44	22.96	-109	44.75	10874.0	WY	979662.90	980563.18	40.37	-370.88	-0.97	0.00	121.60	-209.88 -126.70
wildns:	WSH120	44	25.04	-109	36.82	8478.0	WY	979851.45	980566.31	10.16	-289.16	-1.42	0.00	81.99	-198.43 -128.07
wildns:	WSH121	44	25.30	-109	26.65	8473.0	WY	979851.18	980566.71	13.34	-288.99	-1.43	0.00	80.85	-196.22 -126.69
wildns:	WSH122	44	23.64	-109	29.80	9278.0	WY	979803.32	980564.20	10.73	-316.45	-1.32	0.00	111.11	-195.92 -118.87
wildns:	WSH123	44	22.82	-109	31.88	11258.0	WY	979660.96	980562.97	32.55	-383.98	-0.87	0.00	155.93	-196.36 -107.96
wildns:	WSH124	44	21.81	-109	34.02	11686.0	WY	979627.51	980561.45	30.40	-398.58	-0.73	0.00	164.19	-204.72 -112.15
wildns:	WSH125	44	19.92	-109	35.85	12144.0	WY	979590.09	980558.59	31.18	-414.20	-0.58	0.00	172.63	-210.97 -114.71
wildns:	WSH126	43	57.94	-109	49.32	11738.0	WY	979560.44	980525.46	29.60	-400.35	-0.72	0.00	138.00	-233.47 -140.25
wildns:	WSH127	43	56.49	-109	51.53	10962.0	WY	979613.40	980523.27	16.79	-373.88	-0.95	0.00	120.28	-237.76 -147.91
wildns:	WSH128	43	55.24	-109	53.75	10418.0	WY	979648.83	980521.39	7.03	-355.33	-1.09	0.00	106.51	-242.87 -155.20
wildns:	WSH129	43	53.87	-109	55.77	10504.0	WY	979641.27	980519.32	5.49	-358.26	-1.07	0.00	109.10	-244.74 -155.95
wildns:	WSH130	43	51.47	-109	17.05	12040.0	WY	979563.19	980515.70	26.31	-410.65	-0.62	0.00	178.86	-206.10 -109.50
wildns:	WSH131	43	53.58	-109	21.73	11836.0	WY	979580.60	980518.88	17.04	-403.69	-0.69	0.00	173.94	-213.40 -116.20
wildns:	WSH132	43	55.44	-109	19.32	12064.0	WY	979575.63	980521.69	17.25	-411.47	-0.61	0.00	187.57	-207.25 -108.18
wildns:	WSH133	43	57.90	-109	17.70	9990.0	WY	979707.68	980525.40	15.61	-340.73	-1.18	0.00	121.16	-205.14 -123.26
wildns:	WSH134	43	59.93	-109	15.90	8580.0	WY	979800.06	980528.46	12.79	-292.64	-1.41	0.00	78.05	-203.21 -132.64
wildns:	WSH136	44	5.92	-109	24.90	9451.0	WY	979753.30	980537.48	10.92	-322.35	-1.29	0.00	104.06	-208.65 -130.18
wildns:	WSH137	44	9.75	-109	26.54	12238.0	WY	979559.06	980543.26	40.40	-417.40	-0.55	0.00	165.76	-211.79 -117.05
wildns:	WSH138	44	4.52	-109	32.10	11725.0	WY	979580.10	980535.38	19.82	-399.91	-0.72	0.00	146.52	-234.29 -138.73
wildns:	WSH139	43	59.37	-109	2.79	6778.0		979919.30	980527.61	2.07	-231.18	-1.52	0.00	28.84	-201.79 -143.92
wildns:	WSH140	44	1.90	-109	2.85	6662.0	WY	979930.60	980531.43	1.84	-227.22	-1.52	0.00	25.43	-201.47 -144.53
wildns:	WSH141	44	3.75	-109	7.10	6829.0	WY	979921.07	980534.22	2.25	-232.92	-1.52	0.00	28.80	-203.39 -145.12
wildns:	WSH142	44	3.22	-109	10.71	7274.0	WY	979891.75	980533.41	4.00	-248.10	-1.51	0.00	42.09	-203.52 -141.89
wildns:	WSH143	44	2.82	-109	14.26	7936.0	WY	979854.31	980532.81	6.50	-270.67	-1.47	0.00	67.44	-198.20 -131.54
wildns:	WSH144	44	3.65	-109	14.20	7420.0	WY	979881.07	980534.06	6.04	-253.08	-1.50	0.00	44.48	-204.06 -141.70
wildns:	WSH145	44	4.32	-109	13.63	7320.0	WY	979893.27	980535.08	4.58	-249.66	-1.51	0.00	46.27	-200.32 -138.44
wildns:	WSH146	44	4.75	-109	12.88	7271.0	WY	979894.31	980535.73	3.71	-247.99	-1.51	0.00	42.06	-203.73 -142.05
wildns:	WSH147	44	6.05	-109	11.30	6896.0	WY	979919.78	980537.68	2.51	-235.20	-1.52	0.00	30.34	-203.87 -145.10
wildns:	WSH148	44	7.25	-109	9.50	6954.0	WY	979916.81	980539.49	1.93	-237.18	-1.52	0.00	31.01	-205.76 -146.35

SOUTH ABSAROKA WILDERNESS GRAVITY — BOUGUER GRAVITY DATA

CARL LONG

Meter ID: g-17 Date: 07/19/79

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.00	F
wildns:	WSH149	44	8.21	-109	8.37	6983.0	WY	979916.78	980540.94	1.70	-238.17	-1.52	0.00	32.25	-205.73	-146.01	
wildns:	WSH150	44	9.72	-109	5.88	6661.0	WY	979940.42	980543.22	1.62	-227.19	-1.52	0.00	23.36	-203.72	-146.74	
wildns:	WSH151	44	13.60	-109	6.52	7442.0	WY	979899.28	980549.06	4.38	-253.83	-1.50	0.00	49.75	-201.20	-138.23	
wildns:	WSH152	44	13.95	-109	3.10	6785.0	WY	979941.99	980549.59	1.49	-231.42	-1.52	0.00	30.21	-201.24	-143.16	
wildns:	WSH153	44	0.39	-109	19.25	10732.0	WY	979668.02	980529.15	13.12	-366.04	-1.01	0.00	147.43	-206.50	-117.69	
wildns:	WSH154	44	1.10	-109	19.40	10767.0	WY	979663.93	980530.22	11.88	-367.23	-1.00	0.00	145.55	-210.80	-121.38	
wildns:	WSH155	44	1.76	-109	19.55	10680.0	WY	979673.87	980531.22	10.94	-364.26	-1.02	0.00	146.32	-208.02	-119.10	
wildns:	WSH156	44	2.26	-109	19.48	10767.0	WY	979662.84	980531.97	14.45	-367.23	-1.00	0.00	142.72	-211.07	-122.29	
wildns:	WSH157	44	3.18	-109	18.61	10791.0	WY	979654.89	980533.36	22.21	-368.05	-0.99	0.00	135.63	-211.20	-124.17	
wildns:	WSH158	44	4.20	-109	17.18	10199.0	WY	979699.27	980534.89	15.36	-347.86	-1.14	0.00	122.88	-210.75	-127.03	
wildns:	WSH159	44	6.36	-109	18.05	7692.0	WY	979866.94	980538.15	7.43	-262.35	-1.49	0.00	51.81	-204.60	-140.26	
wildns:	WSH160	44	6.72	-109	15.06	7258.0	WY	979906.75	980538.70	4.47	-247.55	-1.51	0.00	50.31	-194.28	-132.91	
wildns:	WSH161	44	18.80	-109	19.05	7374.0	WY	979918.13	980556.91	4.53	-251.51	-1.51	0.00	54.37	-194.11	-131.76	
wildns:	WSH162	44	28.34	-109	15.92	5791.0	WY	980027.83	980571.30	3.21	-197.51	-1.48	0.00	0.94	-194.85	-145.72	
wildns:	WSHRSE	44	9.19	-109	36.14	6365.0	WY	979949.27	980542.41	12.82	-217.09	-1.51	0.00	5.20	-200.58	-148.94	
wildns:	WSHCBS	44	31.53	-109	3.70	5010.0	WY	980063.51	980576.10	0.82	-170.88	-1.41	0.00	-41.59	-213.06	-170.03	