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no. 74-88

U.S. GEOLOGICAL SURVEY  
[REPORTS - OPEN FILE SERIES]

74-88

This openfile package contains experimental, working materials developed for a test site in southern Arizona, specifically the Mesa quadrangle of the standard 1:250,000-scale series of maps. The land use information in this package was primarily derived from 1971 high-altitude aerial photography. The experimental map is computer-plotted with polygons representative of land use patterns; ten acres is the minimum size of actual land use depicted on the map by the polygons. Accuracy for the land use map has been verified by field checking to be higher than 95% in both urban and agricultural areas. Land use patterns were delineated according to the classification system proposed by USGS Circular 671. In addition to the land use map, a transparent composite overlay of the black, gray and red plates for the quadrangle is supplied to satisfy locational information.

Along with the chosen map output of land use, the computer data bank and this package contain other factors which include: drainage basin, census tract, and soil information, which were obtained from other agencies. The analyses of these factors are contained in computer-calculated compilations called area summaries. Summaries for each of the specific factors tabulate the total polygon areas of various types of categories delineated within each factor. The calculation figures show the occupied land area in acres, hectares, and percentage for each category in the quadrangle; area summaries are provided for each factor. Listed on each respective area summary is an explanation of the code symbols representing each category within the different factors.



# DRAINAGE BASINS

AREA SUMMARIES FOR MAP [REDACTED] OF DRAINAGE BASINS  $\frac{1}{2}$

MESA

QUAD

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DRAINAGE BASINS

	ACRES	HECTARES	
5910*	9363.176	3789.142	0.184
6004	609679.312	246728.437	11.998
6005	4885.301	1977.011	0.096
6009	44603.504	18050.395	0.878
6010	129020.375	52212.687	2.539
6011	237062.250	95935.625	4.665
6013	398494.312	161264.875	7.842
6014	1890938.00	765235.375	37.211
6016	1757675.00	711305.750	34.588

TOTAL 5081718.00 2056498.00

\* [REDACTED]

5910	NEW RIVER DRAINAGE BASIN
6004	SAN CARLOS RIVER DRAINAGE BASIN
6005	SAN PEDRO RIVER DRAINAGE BASIN
6009	SANTA CRUZ RIVER DRAINAGE BASIN
6010	BLACK RIVER DRAINAGE BASIN
6011	TONTO CREEK DRAINAGE BASIN
6013	VERDE RIVER DRAINAGE BASIN
6014	SALT RIVER DRAINAGE BASIN
6016	GILA RIVER DRAINAGE BASIN

ORIGINAL MAP FROM:

THE WATER RESOURCES DIVISION  
GEOLOGICAL SURVEY, USDI.

Experimental Tabulation from the USGS Data Bank for Land Use and  
Related Factors.

# SOILS--MESA--

QUAD  
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## AREA SUMMARIES FOR MAP [REDACTED] FOR SOILS

SOIL TYPES

	ACRES	HECTARES	
4100	5954.926	2409.873	0.117
4111	212349.812	86137.250	4.188
4112	331621.312	134202.375	6.525
4113	134224.437	54318.699	2.641
4115	9336.266	3778.252	0.184
4116	133786.500	54141.469	2.632
4117	21227.289	8590.375	0.418
4118	393321.062	159171.375	7.739
4121	199228.812	80625.000	3.920
4122	180999.000	73247.637	3.561
4123	29029.824	11747.949	0.571
4124	129925.312	52579.105	2.556
4125	489783.187	198208.187	9.637
4126	71114.687	28779.090	1.399
4199	2740211.00	1108923.00	53.914

TOTAL 5082574.00 2056844.00

### MARICOPA COUNTY

4100	WATER
4111	TYPIC TORRIFLUVENTS
4112	TYPIC HAPLARGIDS
4113	TYPIC CALCICRTHIDS
4115	LITHIC TORRORTHEMIS
4116	SHALLOW SOILS OVER UNWEATHERED AND/OR WEATHERED BEDROCK
4117	SHALLOW AND MODERATELY DEEP SOILS OVER GEOLOGIC MATERIALS
4118	STONY AND ROCKY MOUNTAINOUS LAND.

### PINAL COUNTY

4121	SOILS OF THE FLOOD PLAINS
4122	SOILS OF THE VALLEY SLOPES
4123	SHALLOW SOILS OVER BEDROCK
4124	LIMY SOILS ON VALLEY SLOPES AND HIGH FANS
4125	ROCK LAND
4126	MISCELLANEOUS
4199	DATA UNAVAILABLE (LAND AREA IN QUAD BUT OUTSIDE MARICOPA AND PINAL COUNTIES.)

ORIGINAL MAP FROM:

THE SOIL CONSERVATION  
SERVICE, USDA.

AREA SUMMARIES FOR MAP OF CENSUS TRACTS

CENSUS TRACTS - MARICOPA COUNTY

	ACRES	HECTARES	%
21	3841709.00	1554684.00	75.575
101	656348.500	265614.750	12.912
202	77358.125	31305.719	1.522
303	37165.949	15040.523	0.731
304	20063.914	8119.574	0.395
1032	9847.324	3985.070	0.194
1033	299.315	121.129	0.006
1034	161.017	65.161	0.003
1049	165.799	67.097	0.003
1050	7534.699	3049.184	0.148
1051	3736.065	1511.932	0.073
1079	1918.350	776.328	0.038
1080	915.483	370.483	0.018
1081	431.238	174.516	0.008
1082	324.923	131.492	0.006
1083	256.172	103.669	0.005
1109	226.280	91.572	0.004
1110	692.890	280.402	0.014
1111	791.532	320.322	0.016
1112	2424.218	981.046	0.048
1113	653.034	264.273	0.013
1114	217.612	88.064	0.004
1136	206.651	83.629	0.004
1137	599.329	242.540	0.012
1138	2137.456	864.998	0.042
1152	866.660	350.725	0.017
1162	1692.867	685.079	0.033
1167	4745.605	1920.478	0.093
2168	122739.687	49670.984	2.415
2169	1296.396	525.442	0.026
2170	1405.608	568.829	0.028
2171	626.231	253.427	0.012
2172	715.707	289.636	0.014
2173	668.279	270.443	0.013
2174	481.356	194.798	0.009
2175	625.633	253.185	0.012
2176	725.671	293.668	0.014
2177	607.499	245.846	0.012
2178	603.912	244.395	0.012
2179	659.012	266.693	0.013
2180	624.039	252.540	0.012
2181	248.201	100.443	0.005
2182	648.450	262.418	0.013
2183	495.106	200.362	0.010
3184	2141.442	866.611	0.042
3185	617.363	249.838	0.012
3186	713.814	288.870	0.014
3187	614.175	248.548	0.012
3188	700.462	283.467	0.014
3189	596.638	241.451	0.012
3190	636.494	257.580	0.013
3191	642.671	260.080	0.013
3192	627.726	254.032	0.012
3193	291.544	117.984	0.006
3194	2401.799	971.973	0.047
3195	661.902	267.862	0.013
3196	655.226	265.161	0.013

CENSUS TRACTS

MESA

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3198	642.871	260.160	0.013
3199	7084.332	2866.927	0.139
3200	2464.073	997.175	0.048
4201	19451.926	7871.914	0.383
4202	11980.996	4848.535	0.236
4203	3342.789	1352.779	0.066
4204	3775.721	1527.980	0.074
4205	1294.012	523.668	0.025
4206	1877.299	759.716	0.037
4207	3869.581	1565.964	0.076
4208	640.180	259.072	0.013
4209	601.620	243.467	0.012
4210	608.994	246.451	0.012
4211	1499.966	607.014	0.030
4212	1758.429	711.611	0.035
4213	1687.885	683.062	0.033
4214	653.532	264.475	0.013
4215	677.047	273.991	0.013
4216	669.176	270.806	0.013
4217	669.474	270.927	0.013
4218	637.889	258.144	0.013
4219	623.939	252.499	0.012
4220	634.003	256.572	0.012
4221	1735.512	702.337	0.034
4222	7352.762	2975.557	0.145
4223	6327.871	2560.798	0.124
4224	2547.073	1030.763	0.050
4225	8250.508	3338.862	0.162
4226	33153.187	13416.617	0.652
5227	102246.437	41377.660	2.011
5228	3761.074	1522.052	0.074
5229	1312.445	531.127	0.026
5230	2596.493	1050.763	0.051
5231	1852.787	749.796	0.036
6232	23073.906	9337.676	0.454

TOTAL 5083295.00 2057136.00



ORIGINAL MAP FROM:

THE BUREAU OF THE CENSUS  
U.S. DEPT. OF COMMERCE  
CENSUS OF POPULATION 1970

Experimental Tabulation from the USGS Data Bank for Land Use and  
Related Factors.

	ACRES	HECTARES	PERCENT
14	59712.941	24164.965	1.174
12	4665.395	1888.018	0.092
13	5202.109	2105.219	0.102
14	17900.973	7244.266	0.352
15	2497.210	1010.585	0.049
16	9284.754	3757.406	0.183
17	5258.699	2129.120	0.103
18	321.685	130.181	0.006
19	26143.258	10579.797	0.514
21	297672.125	120463.625	5.853
22	9723.664	3935.027	0.191
23	933.355	377.715	0.018
33	675800.375	273486.875	13.287
34	3920424.00	1596539.00	77.079
42	8033.012	3250.844	0.158
43	1049.824	424.444	0.021
53	34639.086	14017.937	0.681
73	4194.145	1697.310	0.082
No Data	3155.060	1276.807	0.062
TOTAL	5036230.00	2058324.00	

\* LEFT DIGIT REFERS TO LEVEL I; RIGHT DIGIT TO LEVEL II.  
SEE ATTACHED CLASSIFICATION SYSTEM.

## Land-Use Classification System for Use With Remote Sensor Data

### Level I

#### 01. Urban and Built-up Land.

### Level II

#### 01. Residential.

#### 02. Commercial and ser-

#### 03. Industrial.

#### 04. Extractive.

#### 05. Transportation, Com-

#### 06. Institutional.

#### 07. Strip and Clustered

#### 08. Mixed.

#### 09. Open and Other.

#### 02. Agricultural Land.

#### 01. Cropland and Pasture.

#### 02. Orchards, Groves,

#### 03. Chaparral.

#### 04. Desert Shrub.

#### 05. Grass.

#### 06. Savannas (Palmetto

#### 07. Feeding Operations.

#### 08. Other.

#### 09. Forest Land.

#### 01. Deciduous.

#### 02. Evergreen (Coniferous

#### 03. Mixed.

#### 04. Streams and Water-

#### 05. Lakes.

#### 06. Reservoirs.

#### 07. Waterways.

#### 08. Lakes.

#### 09. Reservoirs.

#### 10. Waterways.

#### 11. Lakes.

#### 12. Reservoirs.

#### 13. Waterways.

#### 14. Lakes.

#### 15. Reservoirs.

#### 16. Waterways.

#### 17. Lakes.

#### 18. Reservoirs.

#### 19. Waterways.

#### 20. Lakes.

#### 21. Reservoirs.

U.S. GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

STATION 1010 CHESAPEAKE RIVER AT JAMES CITY



EXPERIMENTAL PLOT



- 1. 100 ft. contour interval
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Source: U.S. Geological Survey, 1964

Map Number: 1010-1

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