PALOS VERDES LANDFILL
REMEDIAL INVESTIGATION REPORT

APPENDIX D.6

SOUTH COAST BOTANIC GARDEN LAKE AND STREAM MASS BALANCE STUDY DATA

90-0040 DPW 12/86
(FCD 1745)

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
HYDRAULIC/WATER CONSERVATION DIVISION
MONTHLY EVAPORATION REPORT

Station S. C. B. G. No. 444-FE Month of Oct. 1992 19__

Date	Time of Reading	Rain Inches	EVAPORATION Land Pan +/-	Land Pan Cups	Land Pan Inches	Lake Pan +/-	Lake Pan Cups	Lake Pan Inches	Air Temp. Max.	Air Temp. Min.	Remarks or Other Weather Data
1	8:00	0	+	6					91	59	CLOUDY
2	8:00	0	+	5					87	56	Cloudy
3	9:00	0	+	4					84	53	clear
4	8:00	0	+	4					81	50	clear
5	8:00	0	+	5					85	51	Fog
6	8:00	0	+	4					80	49	clear
7	8:00	0	+	4					82	52	clear
8	8:00	0	+	6					85	51	Fog
9	9:30	0							83	51	Fog
10	9:10	0							79	51	Clear
11	8:00	0			For Sat, Sun, Mon & Tues.				77	53	overcast
12	8:00	0	+	15					71	61	overcast
13	8:00	0	+	8 4					76	56	CLDy
14	8:00	0	+	8 4					75	59	CLDy
15	8:00	0	+	3½					73	53	overcast
16	9:15	0			← START on 16th				73	51	overcast
17	9:15	0							74	51	overcast
18	8:00	0	+	11	For Sat, Sun, Mon 0.28				75	53	overcast
19	8:00	0	+	4	0.10				76	56	overcast
20	8:00	0	+	2½	0.06				78	58	overcast
21	8:00	.34	-	11	0.07				69	56	clear
22	9:00	Trace	+	2½	0.06				80	58	Lite Drizzle
23	9:05	0.12							89	61	Cloudy
24	9:30	0							78	55	Clear
25	8:00	0	+	7	For Sat, Sun, Mon 0.18				77	53	Scat. CLDs.
26	8:00	0	+	3	0.08				78	56	overcast
27	8:00	0	+	2½	0.06				76	56	Scat CLDs.
28	8:00	.07	+	1	0.10				73	58	CLOUDy
29	8:00	.11	+	1	0.14				71	60	Cloudy Drizzle
30	9:15	0.23							69	51	Sunny
31	7:05	0							73	48	Sunny
Total		.97			1.13"						

since 10/16/92

Observer Hatch
Signature

Note: 1 cup = .025 inch of evaporation

TO DETERMINE EVAPORATION DURING PERIODS OF RAINFALL

1. Submerged R.P.: Evaporation = rain in inches less number of cups bailed out in inches.
2. Non-Submerged R.P.: Evaporation = rain in inches plus number of cups added in inches.

Make original and one carbon copy. Mail original to Hydraulic/Water Conservation Division, Los Angeles County Department of Public Works, P. O. Box 4089, Terminal Annex, Los Angeles, CA 90051, immediately after end of month with precipitation record. Retain carbon copy in book.

90-0040 DPW 12/86
(FCD 1745)

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
HYDRAULIC/WATER CONSERVATION DIVISION
MONTHLY EVAPORATION REPORT

Station S. C. B. G. No. 444-FE Month of November

Date	Time of Reading	Rain Inches	EVAPORATION						Air Temp.		Remarks or Other Weather Data
			Land Pan			Lake Pan					
			+/−	Cups	Inches	+/−	Cups	Inches	Max.	Min.	
1	9:00	0	−	1	0				83	53	Scat CLDs
2	8:00	0	+	4	0.10				83	56	Clear
3	8:00	0	+	4	0.10				83	47	Scat CLDs.
4	8:00	0	+	4	0.10				77	47	Scat CLDs.
5	9:00	0	+	3	0.08				78	48	Clear
6	9:00	0							82	44	Clear
7	9:30	0			0.25				79	52	Clear
8	8:00	0	+	10	Sat Sun Monday.				72	54	Scat. CLDs.
9	9:00	0	+	2½	0.06				71	51	Clear
10	9:00	0			0.20				72	40	Clear
11	8:00	0	+	8	Wed., Thursday				75	41	Clear
12	8:00	0	+	4	0.10				79	43	Clear
13	9:00	0							85	47	Clear
14	9:05	0			0.26				85	47	Clear
15	8:00	0	+	10½	Sat Sun Monday				80	46	Clear
16	8:00	0	+	2	0.05				76	49	Overcast
17	8:00	0	+	2	0.05				71	46	Overcast
18											
19											
20											
21											
22											TOTAL Evaporation
23											from Oct. 16 to
24											Nov. 16 = 2.48"
25											
26											
27											
28											
29											
30											
31											
Total				56	1.35						

Observer _____
Signature

Note: 1 cup = .025 inch of evaporation

TO DETERMINE EVAPORATION DURING PERIODS OF RAINFALL

1. Submerged R.P.: Evaporation = rain in inches less number of cups bailed out in inches.
2. Non-Submerged R.P.: Evaporation = rain in inches plus number of cups added in inches.

Make original and one carbon copy. Mail original to Hydraulic/Water Conservation Division, Los Angeles County Department of Public Works, P. O. Box 4089, Terminal Annex, Los Angeles, CA 90051, immediately after end of month with precipitation record. Retain carbon copy in book.

MEMORANDUM

County Sanitation Districts
of Los Angeles County
213-699-7411

Measuring Lake and Stream Level

P.O. Box 4998
Whittier, CA 90607
213-685-5217

Date	Time	Lake Level	Stream Level	Comment
10-16-92	3:50 Pm	1' 9"	3' 1"	water is off
10-19-92	10:30 Am	1' 8½"	3' 0"	overcast
10-20-92	10:10 Am	1' 8½"	2' 11¼"	overcast
10-21-92	10:30 Am	1' 8¼"	2' 10¾"	
10-21-92	3:15 Pm	1' 8¾"	2' 11"	start raining at 1120 Am 0.34" rain this reading after stop raining.
10-22-92	11:00 Am	1' 8½"	2' 10½"	overcast
10-23-92	8:40 Am	1' 8½"	2' 10¼"	Light rain 0820 → 0835
10-26-92	8:14 Am	1' 8¼"	2' 8½"	Light to heavy intermittent rains 10/23 and 10/24
10-27-92	9:15 Am	1' 8¼"	2' 8"	overcast
10-28-92	9:50 Am	1' 8¼"	2' 7½"	Cloudy
10-29-92	8:50 Am	1' 8¼"	2' 7"	Light rain overnight
10-30-92	8:20 Am	1' 8"	2' 6½"	rain in early morning
10-30-92	3:40 Pm	1' 8½"	2' 7"	raining again this reading after stop raining
11-2-92	8:30 Am	1' 8"	2' 5½"	Sunny
11-3-92	8:40 Am	1' 8"	2' 5"	Sunny
11-4-92	11:30 Am	1' 8"	2' 4¼"	Sunny
11-5-92	8:15 Am	1' 8"	2' 3¾"	start adding water to stream.
11-6-92	4:40 Pm	1' 8"	3' ¼"	stop adding water to stream. 67551 Gallons added
11-10-92	8:30 Am	1' 7½"	2' 10½"	overcast not all will reach stream
11-11-92	8:45 Am	1' 7½"	2' 10"	overcast
11-12-92	8:45 Am	1' 7½"	2' 9½"	Sunny
11-13-92	8:45 Am	1' 7½"	2' 9"	Sunny
11-16-92	11:15 Am	1' 7"	2' 7"	Sunny
11-17-92	8:00 Am	1' 7"	2' 6¾"	cloudy

FORM 85 L

Adding Tap Water to Botanic garden Stream.

Meter reading		Time	Date	Rate (GPM)	Stream Level
12336407	(Start)	8:15 Am	11-5-92	30	same
12336800		8:55 Am	11-5-92	30	same
12342440		12:11 pm	11-5-92	30	same
12351125		4:50pm	11-5-92	30	same
12378900		8:30 Am	11-6-92	50	2' 7½"
12386950		11:15 Am	11-6-92	50	2' 9"
12396800		2:15pm	11-6-92	50	2' 11"
12403958	(Stop)	4:40pm	11-6-92	50	3' ¼"

Total water used = 12403958 − 12336407 = 67551 Gallons

PALOS VERDES LANDFILL
REMEDIAL INVESTIGATION REPORT

APPENDIX D.7

MASTER DATA FILE USED
IN MCS GEOLOGIC MODEL

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C*THIS IS THE DATA SET FOR MODELING PALOS VERDES LANDFILL GEOLOGY, 1994
C*111  4171400  4034460
C*222  4193610  4023510
C*333  4201120  4038950
C*444  4178870  4049740
C*ID||    X  ||    Y  ||S||TOPO||BEXC||BQO ||BQUS||BTMM||BTMV||BTMA||PVFZ||DISP|| TD |
<ID ><    X  ><    Y  ><S>< Z1 >< Z2 >< Z3 >< Z4 >< Z5 >< Z6 >< Z7 >< Z8 >< Z9 >< TD >
 1111  4171400  4034460 20  1000  1300        2000  1500        -650
 2222  4193610  4023510 20   295  1300                          -400
 3333  4201120  4038950 20    40  1300                         -5900
 3444  4178870  4049740 20    86  1300                         -4650
C*THE FOLLOWING DATA ARE FROM THE ADDITIONAL REMEDIAL INVESTIGATION; DAMES & MOORE, 1/94.
  AB1  4182367  4037073  1   318         284                                    268
64B AB1A  4182467  4037480  3   245         241   130                              122
  AB2  4182329  4037996  3   205         176   141                              121
65B AB3  4183069  4036605  3   283         279                                    253
66B AB4  4183346  4036426  3   265         263                                    235
  AB5  4183931  4035711  1   298         289                                    268
 AB5A  4183985  4035846  1   295         293         261                        260
  AB6  4183809  4034533  3   330         265                                    235
  AB7  4184754  4033823  3   302         286                                    251
67B AB8  4183491  4037142  3   204         100                          43  -100  -14
68B AB9  4183692  4037470  3   180         149                                   -27
C*THE FOLLOWING DATA ARE FROM THE HCP, PHASES I & II (HERZOG, 1990)
 RFB1  4181002  4036555  1   337         319               277                  162
 RFB2  4182113  4038305  1   202         176    53                               45
 M50B  4182366  4038476  3   177          73                                   -28
 M51B  4182644  4037746  3   218         196   110    54                         10
 RFB6  4182576  4037284  1   263         249   178                               89
 RFB7  4182817  4036847  1   298         285         245                          3
 RFB8  4183281  4037215  1   211         130    63                               49
 RFB9  4183845  4037492  1   173         153                                   -42
RFB10  4183638  4036272  1   268         268                                   193
RFB11  4183961  4035808  1   298         280         271                       123
RFB12  4184527  4035672  1   238         240                                    65
 M52B  4185668  4036452  3   180          79                                   -35
RFB14  4185703  4035921  1   207         191                                   -18
RFB15  4185604  4035278  1   283         258         180                       181
 M53B  4184012  4034893  3   304         243         184                       -46
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C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
RFB17	4185123	4035958	1	196		172	63						50
RFB18	4181441	4038224	1	422			415						122
RFB19	4181486	4038184	1	419		430	403						168
M54B	4179894	4037829	3	278		268							188
M55B	4180009	4037243	3	302		299							260
RFB22	4180184	4036589	1	406		398							291
RFB23	4179089	4036229	1	499		496							404
M56B	4178935	4035110	3	518		508			428				358
M57B	4179263	4034362	3	501		481			457				342
M58B	4181352	4033194	3	425		413							353
M59B	4185102	4035364	3	284		260		209					184
RFB28	4181888	4032207	1	480		479							397
M60B	4182410	4032291	3	439		406							105
RFB30	4183110	4032338	1	390		388			209				187
M61B	4182790	4031858	3	437		393							304
RFB32	4184213	4032334	1	388		370		272					35
RFB40	4184672	4036762	1	189		184							12
L7	4179230	4037529	22	423		421			368				223
L8	4180813	4034194	22	427		425			450				251
L9	4185588	4033035	22	388		376	328						34
C*THE FOLLOWING DATA ARE FROM THE SWAT INVESTIGATION; KLEINFELDER, 1988.													
M23A	4182145	4037722	3	225		185							170
M24A	4182235	4037963	3	217		207							161
M25A	4182380	4037622	3	228		183							107
M26A	4182542	4038132	3	191		162							-44
M30B	4182782	4036652	3	321		306							198
M32B	4183423	4036005	3	306		288		255					258
M33B	4183434	4035995	3	308		290							215
M34B	4183904	4035517	3	330		307							282
M35B	4183911	4035512	3	330		327		240					212
M36A	4184804	4034958	3	252		232							211
M37A	4184533	4035187	3	262		232							206
M38A	4183785	4034447	3	341		256							245
M39A	4184400	4033756	3	345	295								268
M40A	4184435	4033113	3	337		307							285
M41A	4183224	4032662	3	355		333							314
M42A	4182774	4032898	3	411		396							329
M43A	4182195	4033899	3	380	323								275

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
M44A	4182864	4034188	3	364		279							269
M45A	4181405	4034038	3	411		365							321
M46A	4180783	4036093	3	367		287			350				261
M47B	4180678	4036694	3	381		375							232
M48A	4180540	4037606	3	279		230							216
M49A	4182098	4037500	3	239		187							178
C*THE FOLLOWING DATA ARE FROM THE SUBSURFACE BARRIER MONITORING WELLS													
C*EARTH LOGICS, 12/1986.													
MO1B	4181795	4036957	3	282		215							184
MO2B	4181850	4036996	3	278		206							175
MO3B	4181913	4037049	3	273		203							173
MO4B	4181964	4037099	3	270		210							180
MO5B	4182019	4037163	3	265		203							175
MO6B	4182083	4037235	3	257		202							172
MO7B	4182144	4037278	3	256		201							171
C*THE FOLLOWING DATA ARE FROM THE PARCEL 4 MONITORING WELLS; HINKLE, 1984													
P4-6	4181738	4037031	3	279		233							209
P4-7	4181870	4037139	3	268		208							188
P4-8	4181929	4037207	3	262		212							192
P4-9	4181998	4037321	3	252		196							162
P410	4182014	4037399	3	245		194							165
P411	4181952	4037459	3	242		178							148
P412	4181892	4037529	3	244		206							175
C*PV-3, EARTH LOGICS, 1/10/1986, HOLLOW STEM AUGER													
PV-3	4182250	4037761	3	226		182	200						131
C*OIL WELLS													
C*SOUTHERN CALIFORNIA DRILLING CO. BURKHARD NO. 1													
BURK1	4194650	4027175	5	112		50	-388	-200	-500	-1263			-1328
C*TRADERS OIL CO. WESTON NO. 1													
WEST1	4185355	4038225	5	130		80	-1670	-3570		-6300			-3262
C*PETROLEUM SECURITIES CO. WESTON NO. 1													
PSC1	4185000	4037300	5	160			-1143	-3500		-6200			-3096
C*PETROLEUM SECURITIES CO. NARBONNE NO. 1													
NARB1	4190890	4033510	5	185			-74	-2824			-2324	-1400	-4278
C*PETROLEUM SECURITIES CO. PALOS VERDES NO. 1													
PSPV1	4195480	4030700	5	220									-2260
C*HARBOR CRUDE OIL CO. WHEAT NO. 1													
WHEAT	4184790	4036720	5	200			-550						-3616

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
C*A.T. JERGINS TRUST CO. PALOS VERDES NO. 1													
TRUST	4185360	4033875	5	390	700	340	390	-573	-962	-1785			-2372
C*ROLLING HILLS PETROLEUM CO. WESTON NO. 1													
RHP1	4185090	4036950	5	180						-6120			-6400
C*REVO OIL CO KITA NO. 1													
KITA	4179010	4042900		70			-1770			-5520			-5252
C*HOMESTAKE PRODUCTION CO. CHANDLER 0-13													
CH013	4188450	4033255	5	215	700	176	-115		-1106				-1447
C*HOMESTAKE PRODUCTION CO. CHANDLER 0-3 PICKS BASED ON LOGS/WOODRING PICKS													
CHA03	4188910	4032800	5	333	700	233	250		-1062		-6900	-4000	-1446
C*GENERAL PETROLEUM CO. TORINA NO. 1													
TRINA	4197390	4040400	5	75						-5805			-5875
C*PETROLEUM MIDWAY CO. CAPITAL NO. 3													
PMCAP	4199230	4038385	5	57						-5903			-6015
C*GROUNDWATER PRODUCTION WELLS													
20G2	4176550	4044450	7	91		-45	-1700	-3920	-4250	-5580			-787
20J	4177825	4042800	7	83		-42	-1700						-660
21L1	4180000	4043560	7	73		-132							-447
21G1	4182000	4043460	7	71		-107							-168
21N1	4180100	4042400	7	101		1	-1650						-399
22N1	4184490	4041400	7	79		-135	-1500						-385
22Q1	4188250	4041725	7	75			-1900	-3400	-3750	-5875			-251
34K1	4187125	4032595	7	280		260	85			-1370			40
35E6	4189160	4034400	7	178	600	170	-550	-1600	-2600				
35E7	4190150	4034275	7	185		115							-475
21F1	4180590	4043625	7	72		34	-1900						-140
35F2	4191125	4033780	7	194		194	-478						-501
22E1	4183750	4040050	7	74		-66							-366
27M1	4185200	4036175	7	180		170	-550						-516
28H1	4183410	4038925	7	147		-103							-405
28J3	4182850	4038115	7	185		-45							-325
21P1	4181150	4041800	7	86			-1500						-462
C*CROSS SECTION EXTENSION POINTS													
X1	4179000	4033175											
X2	4181100	4049000											
X3	4176000	4032300											
X4	4191000	4043000											
X5	4177800	4032000											

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C*ID||    X   ||    Y   ||S||TOPO||BEXC||BQO ||BQUS||BTMM||BTMV||BTMA||PVFZ||DISP|| TD |
 X6  4192250  4042500
   X7  4180000  4030400
   X8  4194000  4041800
   X9  4185500  4029000
C*FAULTS OPINION POINTS
C*FAULT LOCATION BORINGS; BUCKET AUGER; WOODWARD-CLYDE/USGS; 4/1985.
BXBY2  4198000  4033200 20    65          55                                  34  -100     24
CHND1  4190315  4034450 20   168         123                                              80
CHND4  4190250  4034625 20   152          69                                              37
FTOP2  4190315  4034400      175                                            155  -135
VALM1  4181360  4039225 20   155         120                                 118   -40    120
FTOP3  4176000  4042700      200                                            198    -5
FTOP4  4193425  4034175      145                                            140    -8
FTOP5  4178900  4041650      120                                            115    -8
FTOP6  4182329  4038020      180         150                                170   -15
FTOP7  4181441  4038220      423                                          -1152 -1000
C*SCHIST OPINION POINTS
SHST1  4199000  4034450       20  1300                       -6900
SHST2  4200000  4036150       20  1300                       -6370
SHST3  4197000  4030450       80  1300                       -7600
C*MISCELLANEOUS OPINION POINTS BASED ON GEOLOGIC BOREHOLE DATA
 3001  4182375  4037065      318   320   284   290
 3002  4182460  4037490      242         232         110
 3004  4183070  4036610      283         279   285   200
 3005  4183340  4036430      265         263   280
 3006  4183935  4035715      298         289   295                                              268
 3007  4183980  4035850      295         293   295   261                                        260
 3008  4183810  4034535      330   340   265         220
 3009  4184755  4033825      302   345   286
 3011  4183690  4037475      180         149
C*BASED ON HERZOG BORINGS
 3012  4181000  4036550      337   342   319
 3013  4182110  4038300      202   500   176    53    70        -6200
 3014  4182370  4038480      177          73  -300
 3015  4182640  4037750      218         196   110    54  -200
 3016  4182575  4037280      263         249   178    46        -6400
 3017  4182820  4036850      298         285   300   245
 3018  4183280  4037210      211         130    63
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C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3020	4183645	4036275		268		268	275	175					
3021	4183960	4035810		298		280		271					
3025	4185600	4035285		283		258	295	180					
3027	4185120	4035960		196		172	63						
3026	4184010	4034890		304	310	243	400	184					
3028	4181440	4038220		422		430	415		50				
3029	4181490	4038180		419		430	403						
3030	4179890	4037830		278	600	268	800		290				
3031	4180010	4037240		302	600	299	800						
3032	4180180	4036590		406	700	398	850						
3033	4179090	4036230		499	800	496	1000		520				
3034	4178930	4035115		518	800	508	1100		428				
3035	4179260	4034360		501	800	481			457				
3036	4181350	4033190		425		413	600		450				
3037	4185100	4035360		284		260		209					
3038	4181895	4032215		480	900	479							
3039	4182415	4032290		439		406			450				
3040	4183115	4032340		390		388			209				
3041	4182795	4031860		437	900	393							
3042	4184215	4032330		388	400	370	440	272	-82				
3044	4179235	4037530		423		421	850		368				
3045	4180810	4034190		427		425			450				
3046	4185590	4033030		388		376	328	0	-350	-1450			
C*BASED ON KLEINFELDER WELLS													
3048	4182235	4037960		217		207	220	215					
3049	4182390	4037625		228		183	200	220					
3050	4182550	4038145		191		162	-200						
3051	4182780	4036650		321		306	315	380					
3052	4183420	4036000		306		288		255					
3055	4183910	4035510		330		327		240					
3056	4184800	4034960		252		232		200					
3058	4183780	4034450		341		256	380						
3059	4184405	4033760		345	295		360						
3060	4184430	4033110		337		307	360						
3061	4183220	4032660		355		333	490	370					
3062	4182770	4032900		411		396		420					
3063	4182190	4033900		380	323								
3066	4180780	4036090		367		[illegible]			350				

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C*ID||    X   ||    Y   ||S||TOPO||BEXC||BQO ||BQUS||BTMM||BTMV||BTMA||PVFZ||DISP||  TD |
3067  4180680  4036690      381          375                  400
 3068  4180545  4037610      279          230   800
C*BARRIER WELLS
 3070  4181800  4036960      282          215                  100
 3076  4182140  4037290      256          201                  -10
C*P4 WELLS
 3077  4181740  4037030      279          233   400
 3081  4182010  4037400      245   246    194                   55
 3082  4181955  4037465      242   246    178
 3083  4181890  4037530      244   246    206                   52
C*TOPOGRAPHIC DATA POINTS
C*QUADRANT 1
  101  4181840  4030635      542
  102  4182160  4030270      570
  103  4182615  4030415      542
C*QUADRANT 2
  201  4183365  4030355      528
  202  4183775  4030135      526
  203  4184225  4030525      414
  204  4184410  4030525      458
  205  4184775  4030105      457
  206  4184890  4030435      488
C*QUADRANT 3
  301  4178010  4033175      603
  302  4179020  4032495      597
  303  4179310  4032285      595
  304  4179340  4032650      549
  305  4179550  4031815      635
  306  4179630  4032570      540
  307  4180005  4033140      503
  308  4180265  4032445      539
  309  4180330  4031875      473
  310  4180435  4032730      517
C*QUADRANT 4
  401  4180775  4033035      478
  402  4181135  4032080      512
  403  4181780  4033400      418
  404  4182145  4032450      443
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C*ID||     X   ||     Y   ||S||TOPO||BEXC||BQO ||BQUS||BTMM||BTMV||BTMA||PVFZ||DISP|| TD |
405  4182310  4033400       412
  406  4182510  4033250       413
  407  4182680  4032100       454
C*QUADRANT 5
  501  4183220  4032835       347
  502  4183390  4031590       463
  503  4183795  4031040       476
  504  4183940  4033365       387
  505  4183975  4032728       384
  506  4184220  4033075       373
  507  4184630  4031325       431
  508  4184755  4032280       414
  509  4185405  4032360       403
C*QUADRANT 6
  601  4185730  4032300       415
  602  4185890  4033340       397
  603  4185890  4032750       396
  604  4186378  4032980       406
C*QUADRANT 7
  701  4178000  4033500       575
  702  4178000  4036000       550
  703  4180500  4033500       450
  704  4176805  4035572       720
  705  4177072  4034695       683
  706  4177210  4034140       727
  707  4177610  4033784       648
  708  4177840  4035545       619
  709  4177965  4034060       602
  710  4177965  4033630       590
C*QUADRANT 8
  801  4178040  4034180       606
  802  4178060  4035035       580
  803  4178180  4035535       585
  804  4178300  4035725       577
  805  4178880  4035925       546
  806  4179075  4034700       462
  807  4179495  4035233       463
  808  4179620  4035115       470
```

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
809	4179620	4034815		464									
810	4179765	4034510		465									
811	4179930	4034405		470									
812	4179970	4033595		432									
813	4180000	4034280		464									
814	4180205	4034165		461									
815	4180330	4033613		432									
816	4180340	4034875		438									
C*QUADRANT 9													
901	4180740	4033635		423									
902	4180765	4034210		427									
903	4181335	4033540		424									
904	4181370	4034340		418									
905	4181500	4035865		383									
906	4181635	4034505		437									
907	4181995	4034325		426									
908	4182320	4034850		448									
909	4182710	4035565		447									
910	4182740	4035105		448									
911	4182962	4033860		385									
C*QUADRANT 10													
1001	4183690	4034295		340									
1002	4184080	4034270		349									
1003	4184080	4033670		389									
1004	4185355	4035445		286									
1005	4183690	4033980		312									
C*QUADRANT 11													
1101	4185560	4033660		397									
1102	4185648	4035425		284									
1103	4185815	4034550		376									
1104	4185860	4033620		401									
1105	4186450	4035240		320									
1106	4186885	4033765		363									
1107	4187360	4034185		381									
1108	4187750	4034130		372									
1109	4187890	4034775		238									
1110	4188125	4034885		209									
1112	4188510	4035850		128									

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
C*QUADRANT 12													
1201	4176695	4036280											659
1202	4177260	4037010											504
1203	4177550	4036775											506
1204	4177575	4036100											581
1205	4177810	4036640											503
1206	4177915	4037850											395
C*QUADRANT 13													
1301	4178228	4036505											503
1302	4178262	4037857											442
1303	4178440	4036120											548
1304	4178660	4036070											539
1305	4178810	4036335											568
1306	4179325	4038175											411
1307	4179610	4036780											426
1308	4179890	4038420											434
1309	4180458	4038280											456
C*QUADRANT 14													
1401	4180800	4037685											370
1402	4180825	4036765											364
1403	4180855	4038340											446
1404	4181170	4038470											461
1405	4181375	4037440											364
1406	4181375	4037200											356
1407	4182410	4038370											191
1408	4182715	4038035											197
1409	4182875	4036945											300
1410	4182915	4038300											172
C*QUADRANT 15													
1501	4183272	4038115											172
1502	4183295	4037455											200
1503	4183855	4037530											171
1504	4183855	4036483											242
1505	4184130	4037715											158
1506	4184365	4036970											186
1507	4184615	4038425											125
1508	4184655	4036095											228
1509	4185455	4038120											132

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
C*QUADRANT 16													
1601	4185810	4036019		198									
1602	4186115	4037100		152									
1603	4186385	4037795		128									
1604	4186775	4036550		149									
1605	4187297	4036955		132									
1606	4187945	4036450		124									
C*QUADRANT 17													
1701	4178875	4038720		455									
1702	4179280	4038570		465									
1703	4179805	4039040		401									
C*QUADRANT 18													
1801	4181270	4038918		169									
1802	4181583	4041450		96									
1803	4181583	4041110		102									
1804	4181583	4038740		236									
1805	4181975	4039370		150									
1806	4182265	4038765		167									
1807	4182580	4039305		151									
C*QUADRANT 19													
1901	4183740	4039810		128									
1902	4183760	4039520		132									
1903	4184110	4039450		127									
1904	4184780	4038780		120									
C*TOPOGRAPHIC DATA POINTS FROM USGS QUAD MAP													
2001	4181000	4030000		660		655	850					380	
2002	4182000	4030000		575			830						
2003	4183000	4030000		560									
2004	4184000	4030000		475								300	
2005	4185000	4030000		440									
2006	4186000	4030000		375									
2007	4187000	4030000		375		355						-600	
2008	4188000	4030000		360									
2009	4189000	4030000		350									
2010	4190000	4030000		350								-1300	
2011	4191000	4030000		295									
2012	4192000	4030000		248									
2013	4193000	4030000		290									

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
2014	4194000	4030000		290									
2015	4195000	4030000		230									
2016	4196000	4030000		210									
2020	4185000	4028000		738		750				720			
2021	4186000	4028000		680		700				680			
2022	4187000	4028000		510		505				450			
2023	4188000	4028000		580		600							
2024	4189000	4028000		495									
2025	4190000	4028000		410									
2026	4191000	4028000		300									
2027	4192000	4028000		240									
2028	4193000	4028000		205									
2029	4194000	4028000		160									
2030	4195000	4028000		145									
2031	4184000	4040000		120									
2032	4185000	4040000		105									
2033	4186000	4040000		90									
2034	4187000	4040000		90									
2035	4188000	4040000		77									
2036	4189000	4040000		75									
2037	4190000	4040000		72									
2038	4191000	4040000		71									
2039	4192000	4040000		67									
2040	4193000	4040000		67									
2041	4194000	4040000		66									
2042	4195000	4040000		63									
2043	4196000	4040000		58									
2044	4197000	4040000		60									
2045	4176000	4042000		340									
2046	4177000	4042000		290							-5700		
2047	4178000	4042000		100									
2048	4179000	4042000		85									
2049	4180000	4042000		78									
2050	4176000	4040000		418		410							
2051	4178000	4040000		415		410							
2052	4183000	4042000		82									
2053	4180000	4040000		250							-6000		
2054	4176000	4039000		395		392		800	395			-10250	-6000

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
2055	4186000	4042000		77									
2056	4189000	4042000		90									
2057	4191000	4042000		75									
2058	4192000	4042000		95									
2059	4194000	4042000		80									
2060	4176000	4037000		620		607							
2061	4180000	4037000		400									
2062	4176000	4035000		820		818				-400			
2063	4175000	4033000		910		908				-200			
2064	4179435	4037170		350									
2065	4178775	4037170		400									
2066	4180255	4037435		300									
2067	4180125	4037435		350									
2068	4179860	4037435		400									
2069	4179250	4037435		425									
2070	4179300	4037930		300									
2071	4178880	4037930		350									
2072	4178630	4037930		400									
2073	4187000	4027000		780		770							
2074	4188000	4027000		720									
2075	4189000	4027000		620									
2076	4191000	4027000		380									
2077	4194000	4027000		170									
2078	4189000	4026000		675									
2079	4190000	4026000		480									
2080	4192000	4026000		300									
2081	4193500	4026000		200									
2082	4190000	4025000		440									
2083	4193000	4025000		240									
2084	4193000	4024000		300									
2085	4172000	4035000		940		945	2000						
2086	4173000	4035000		820		818							
2087	4174000	4035000		780		775							
2088	4175000	4035000		760		755							
2089	4173000	4034000		920		920							
2090	4174000	4034000		960		965							
2091	4175000	4034000		860		855							
2092	4173000	4036000		850									

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C*ID||    X   ||    Y   ||S||TOPO||BEXC||BQO ||BQUS||BTMM||BTMV||BTMA||PVFZ||DISP|| TD |
2093  4174000  4036000      780
 2094  4173000  4037000      690
 2095  4174000  4038000      465
 2096  4174000  4039000      400
C*GEOLOGIC PICKS BASED ON WOODRING, 1946.
 2097  4175000  4040000      380              370   500
 2098  4178000  4039000      465                    900   465
C*BASE OF EXCAVATION DATA POINTS
C*SCBG
 3001  4183000  4033000           395   400
 3002  4183000  4033200           392
 3003  4183000  4033400           370
 3004  4183000  4033600           377
 3005  4183000  4033800           377
 3006  4183000  4034000           373
 3008  4183200  4033000           343
 3009  4183200  4033200           343
 3010  4183200  4033400           335   350
 3011  4183200  4033600           300
 3012  4183200  4033800           273
 3013  4183200  4034000           275
 3014  4183200  4034200           380
 3015  4183400  4033000           395
 3016  4183400  4033200           387
 3017  4183400  4033400           319
 3018  4183400  4033600           273   400
 3019  4183400  4033800           263
 3020  4183400  4034000           254
 3021  4183400  4034200           270
 3022  4183600  4033000           348
 3023  4183600  4033200           356
 3024  4183600  4033400           335
 3025  4183600  4033600           268
 3026  4183600  4033800           258
 3027  4183600  4034000           255   400
 3028  4183600  4034200           260
 3029  4183800  4033000           320
 3030  4183800  4033200           318
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C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3031	4183800	4033400			357								
3032	4183800	4033600			283								
3033	4183800	4033800			275								
3034	4183800	4034000			285								
3035	4183800	4034200			325	360							
3036	4183900	4033900			275								
3037	4183900	4034000			273								
3038	4183900	4034100			277								
3039	4183900	4034200			285								
3040	4183900	4034300			300								
3041	4184000	4033000			320								
3042	4184000	4033200			292								
3043	4184000	4033400			342								
3044	4184000	4033600			282								
3045	4184000	4033900			275								
3046	4184000	4034000			277								
3047	4184000	4034100			277	360							
3048	4184000	4034200			300								
3049	4184000	4034300		330	330								
3050	4184000	4034400		377									
3051	4184200	4033000			325								
3052	4184200	4033200			287								
3053	4184200	4033400			292								
3054	4184200	4033600			287								
3055	4184200	4033800			335								
3056	4184200	4034000			350								
3057	4184200	4034200			380								
3058	4184400	4033200			340								
3059	4184400	4033400			292								
3060	4184400	4033600			287								
3061	4184400	4033800			315								
3062	4183500	4032700			384								
3063	4183500	4032800			377								
3064	4183500	4032900			372								
3065	4183500	4033000			362								
3066	4183700	4032500			392								
3067	4183700	4032700			322								
3068	4183700	4032800			327								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3069	4183700	4032900			337								
3070	4183700	4033000			348								
3071	4183800	4032500			375								
3072	4183800	4032700			310								
3073	4183800	4032800			310								
3074	4183800	4032900			326								
3075	4183900	4032500			345								
3076	4183900	4032700			327								
3077	4183900	4032800			317								
3078	4183900	4032900			335								
3079	4183900	4033000			346								
3080	4184000	4032800			344								
3081	4184000	4032900			346								
3082	4182800	4033000		402	402								
3083	4182800	4033100		409	409								
3084	4181800	4033900		402	402								
3085	4182000	4033700		402	402								
3086	4182000	4033900		392	392								
3087	4182000	4034000			383								
3088	4182200	4033500		415	415								
3089	4182200	4033700		417	417								
3090	4182200	4033900			360								
3091	4182200	4034000			348								
3092	4182400	4033300		418	418								
3093	4182400	4033500		413	413								
3094	4182400	4033700		411	411								
3095	4182600	4033100		422	422								
3096	4182600	4033300		412	412								
3097	4182600	4033500		410	410								
3098	4182600	4033700		410	410								
C*PARCEL 6 BASE OF EXCAVATION; BASED ON GRADING PLAN													
3099	4182800	4035400			345								
3100	4182800	4035600			360								
3101	4182800	4035800			330								
3102	4182800	4036000			250								
3103	4182800	4036200			238								
3104	4182800	4036400			235								
3105	4182800	4036600			298								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3106	4183000	4035200			258								
3107	4183000	4035400			255								
3108	4183000	4035600			252								
3109	4183000	4035800			238								
3110	4183000	4036000			235								
3111	4183000	4036200			233								
3112	4183000	4036400			290								
3113	4183200	4035000			258								
3114	4183200	4035200			255								
3115	4183200	4035400			252								
3116	4183200	4035600			245			375					
3117	4183200	4035800			237								
3118	4183200	4036000			233								
3119	4183200	4036200			275								
3120	4183400	4034800			257								
3121	4183400	4035000			255			330					
3122	4183400	4035200			251								
3123	4183400	4035400			247								
3124	4183400	4035600			243								
3125	4183400	4035800			238								
3126	4183400	4036000			282								
3127	4183600	4034800			256								
3128	4183600	4035000			251								
3129	4183600	4035200			247								
3130	4183600	4035400			245								
3131	4183600	4035600			243								
3132	4183600	4035800			297								
3133	4183800	4034800			285								
3134	4183800	4035000			247								
3135	4183800	4035200			245								
3136	4183800	4035400			248								
3137	4183800	4035600			305								
3138	4184000	4035000			250								
3139	4184000	4035200			247								
3140	4184000	4035400			310								
3141	4182400	4037000			290								
3142	4182400	4036800			275								
3143	4182600	4036000			355			355					

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3144	4182600	4036200			350								
3145	4182600	4036400			345								
3146	4182600	4036600			280								
3147	4182600	4036800			305								
3148	4181000	4034400			425								
3149	4181000	4034600			405								
3150	4181000	4034800			402								
3151	4181000	4035000			387								
3152	4181000	4035200			380								
3153	4181000	4035400			360								
3154	4181000	4035600			350								
3155	4181000	4035800			330								
3156	4181000	4036000			330								
3157	4181000	4036200			300								
3158	4181000	4036400			357								
3159	4181200	4034400			420								
3160	4181200	4034600			414								
3161	4181200	4034800			390								
3162	4181200	4035000			388								
3163	4181200	4035200			345								
3164	4181200	4035400			299								
3165	4181200	4035600			279								
3166	4181200	4035800			271								
3167	4181200	4036000			287								
3168	4181200	4036200			284								
3169	4181200	4036400			284								
3170	4181200	4036600			329								
3171	4181400	4034400			405								
3172	4181400	4034600			395								
3173	4181400	4034800			376								
3174	4181400	4035000			390								
3175	4181400	4035200			330								
3176	4181400	4035400			313								
3177	4181400	4035600			304								
3178	4181400	4035800			290								
3179	4181400	4036000			285								
3180	4181400	4036200			280								
3181	4181400	4036400			298								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3182	4181400	4036600			280								
3183	4181600	4034400			365								
3184	4181600	4034600			355								
3185	4181600	4034800			320								
3186	4181600	4035000			318								
3187	4181600	4035200			320								
3188	4181600	4035400			342								
3189	4181600	4035600			337								
3190	4181600	4035800			330								
3191	4181600	4036000			326								
3192	4181600	4036200			325								
3193	4181600	4036400			314								
3194	4181600	4036600			252								
3195	4181600	4036800			270								
3196	4181800	4034200			354								
3197	4181800	4034400			325								
3198	4181800	4034600			300								
3199	4181800	4034800			290								
3200	4181800	4035000			310								
3201	4181800	4035200			345								
3202	4181800	4035400			315								
3203	4181800	4035600			315								
3204	4181800	4035800			275								
3205	4181800	4036000			275								
3206	4181800	4036200			270								
3207	4181800	4036400			263								
3208	4181800	4036600			248								
3209	4181800	4036800			245								
3210	4181800	4037000			242								
3211	4182000	4034200			363								
3212	4182000	4034400			292								
3213	4182000	4034600			272								
3214	4182000	4034800			260								
3215	4182000	4035000			275								
3216	4182000	4035200			331								
3217	4182000	4035400			268								
3218	4182000	4035600			265								
3219	4182000	4035800			258								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3220	4182000	4036000			255								
3221	4182000	4036200			262								
3222	4182000	4036400			265								
3223	4182000	4036600			270								
3224	4182000	4036800			265								
3225	4182000	4037000			265								
3226	4182000	4037200			225								
3227	4182200	4034200			368								
3228	4182200	4034400			347								
3229	4182200	4034600			277								
3230	4182200	4034800			295								
3231	4182200	4035000			292								
3232	4182200	4035200			284								
3233	4182200	4035400			277								
3234	4182200	4035600			267								
3235	4182200	4035800			272								
3236	4182200	4036000			325								
3237	4182200	4036200			279								
3238	4182200	4036400			267								
3239	4182200	4036600			248								
3240	4182200	4036800			248								
3241	4182200	4037000			270								
3242	4182400	4034200			370								
3243	4182400	4034400			345								
3244	4182400	4034600			337								
3245	4182400	4034800			280								
3246	4182400	4035000			280								
3247	4182400	4035200			282								
3248	4182400	4035400			282								
3249	4182400	4035600			285								
3250	4182400	4035800			319								
3251	4182400	4036000			326								
3252	4182400	4036200			325								
3253	4182400	4036400			248								
C*ERNIE HOWLETT PARK													
3254	4180600	4037200			380								
3255	4180600	4037400			297								
3256	4180600	4037600			292								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3257	4180600	4037700			255								
3258	4180600	4037800			280								
3259	4180600	4037900			330								
3260	4180800	4036600			377								
3261	4180800	4036800			377								
3262	4180800	4037000			376								
3263	4180800	4037200			360								
3264	4180800	4037400			296								
3265	4180800	4037600			265								
3266	4180800	4037700			257								
3267	4180800	4037800			270								
3268	4180800	4037900			315								
3270	4181000	4036800			373								
3271	4181000	4037000			373								
3272	4181000	4037200			330								
3273	4181000	4037400			250								
3274	4181000	4037600			252								
3275	4181000	4037700			257								
3276	4181000	4037800			275								
3277	4181000	4037900			315								
3278	4181200	4036800			363								
3279	4181200	4037000			350								
3280	4181200	4037200			257								
3281	4181200	4037400			243								
3282	4181200	4037600			247								
3283	4181200	4037700			255								
3284	4181200	4037800			290								
3285	4181200	4037900			340								
3286	4181400	4037000			315								
3287	4181400	4037200			246								
3288	4181400	4037400			238								
3289	4181400	4037600			241								
3290	4181400	4037700			250								
3291	4181400	4037800			280								
3292	4181400	4037900			355								
3293	4181600	4037200			245								
3294	4181600	4037400			220								
3295	4181600	4037600			223								

C*ID	X	Y	S	TOPO	BEXC	BQO	BQUS	BTMM	BTMV	BTMA	PVFZ	DISP	TD
3296	4181600	4037700			270								
3297	4181600	4037800			330								
3298	4181600	4037900			390								
3299	4181800	4037400			222								
3300	4181800	4037600			215								
3301	4181800	4037700			218								
3302	4181800	4037800			275								