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HYDROLOGIC INVESTIGATION OF DUCK CREEK AT THE JUNEAU INTERNATIONAL AIRPORT, JUNEAU, ALASKA

by
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INTRODUCTION

Duck Creek is a small stream that runs for approximately three miles through the Mendenhall Valley in Juneau, Alaska. The Mendenhall Valley has become a high density residential and business area that includes schools, shopping centers, service stations, and the Juneau International Airport. Because of this development, the stream channel has been moved and altered through portions of its watershed. Duck Creek historically had large populations of pink, chum, and coho salmon, as well as dolly varden and cutthroat trout. The creek usually goes dry in the lower reaches during both the summer and winter, degrading fish habitat and preventing fish migration.

Currently, Duck Creek traverses the northwest corner of the Juneau International Airport for approximately 2000 feet just upstream of its confluence with the Mendenhall River. The airport management has proposed moving this reach of Duck Creek north to the property boundary, and containing it in a 100 foot wide strip. The proposed airport relocation would move this reach a maximum distance of 500 feet.

The Alaska Department of Fish and Game was concerned that the move would change stream habitat and base flow conditions. A detailed assessment was requested to determine present hydrologic conditions and estimate hydrologic changes that may result from the proposed relocation. The Alaska Department of Natural Resources, Division of Water, in cooperation with the City and Borough of Juneau and the Alaska Department of Fish and Game was requested to conduct the hydrologic assessment. The agencies undertook this project to evaluate:

1) surface and ground water systems,

2) surface and ground water interactions,

3) soil conditions, and

4) ground water chemistry.

Eleven monitoring wells were installed on site and four wells were located off site and tested. Four stream flow measurement sites with staff gages were established.

STUDY LOCATION

The study area was selected to include the undeveloped airport property and surrounding developed areas with existing wells. The study site is located approximately 2,500 feet upstream of the confluence of Duck Creek with the Mendenhall River (Figure 1). At the study site, Duck Creek has a drainage area of approximately three square miles. The actual drainage area is effected by local CBJ drainage plans and does not reflect what is indicated on the USGS topographic maps. Actual mapping of the basin drainage was not part of this study.

Figure 2 shows the study area and well locations. Automated water level recorders were installed in six wells, DC-2, -4, -7, -10, R-Well, and C-Well. Four of the six wells are located on the undeveloped site.

METHODS

Eleven monitoring wells were installed at the project site (Figure 2). All wells except DC-11 consist of 0.010 inch slot stainless steel drive points on 1.25 inch galvanized pipe. Well DC-11 was an additional well that was installed in a soil bore hole. Well DC-11 consists of a stainless steel 60 gauze drive point on 1.25 inch galvanized pipe. All wells on site were drilled with a Mobile-Drill portable drill rig using three foot long, two inch diameter auger flights. All wells except DC-11 were installed at or near the drilled depth. Well DC-11 was driven approximately five feet deeper than drilled because the existing soil bore hole was only ten feet deep. Two wells, DC-5 and DC-8 were located near the center of the site in a cluster to evaluate changes in water quality with depth.

Well top-of-casing elevations were surveyed relative to a CBJ benchmark located on the airport (Figure 2) with R & M Engineering providing the benchmark elevation, 25.0 feet (Mal Menzies, written commun., 1994).

All wells were purged at approximately one gallon per minute using a peristaltic pump. Wells were pumped until the water cleared and conductivity measurements stabilized. Nine wells and lower Duck Creek were sampled with a Hydrolab using a flow through cell for conductivity, pH, temperature (degrees C), and dissolved oxygen. All sampling was done in accordance with U.S. Environmental Protection Agency (1982) methods. Standardization of all field meters was done on a daily basis. Samples were collected for major anion and cations, total and dissolved iron. Alkalinity samples were titrated in the field. All samples were analyzed by the Alaska Division of Water, Water Quality Laboratory located in Fairbanks, Alaska. The laboratory is a participant in the USEPA Performance Evaluation program as well as the USGS Standard Reference Water Sample Quality Assurance program. Analytical methods are listed in Table 1. For all parameters, calibrations were performed using NIST traceable standards where applicable. General data reduction procedures are described in Standard Methods (APHA, 1989).

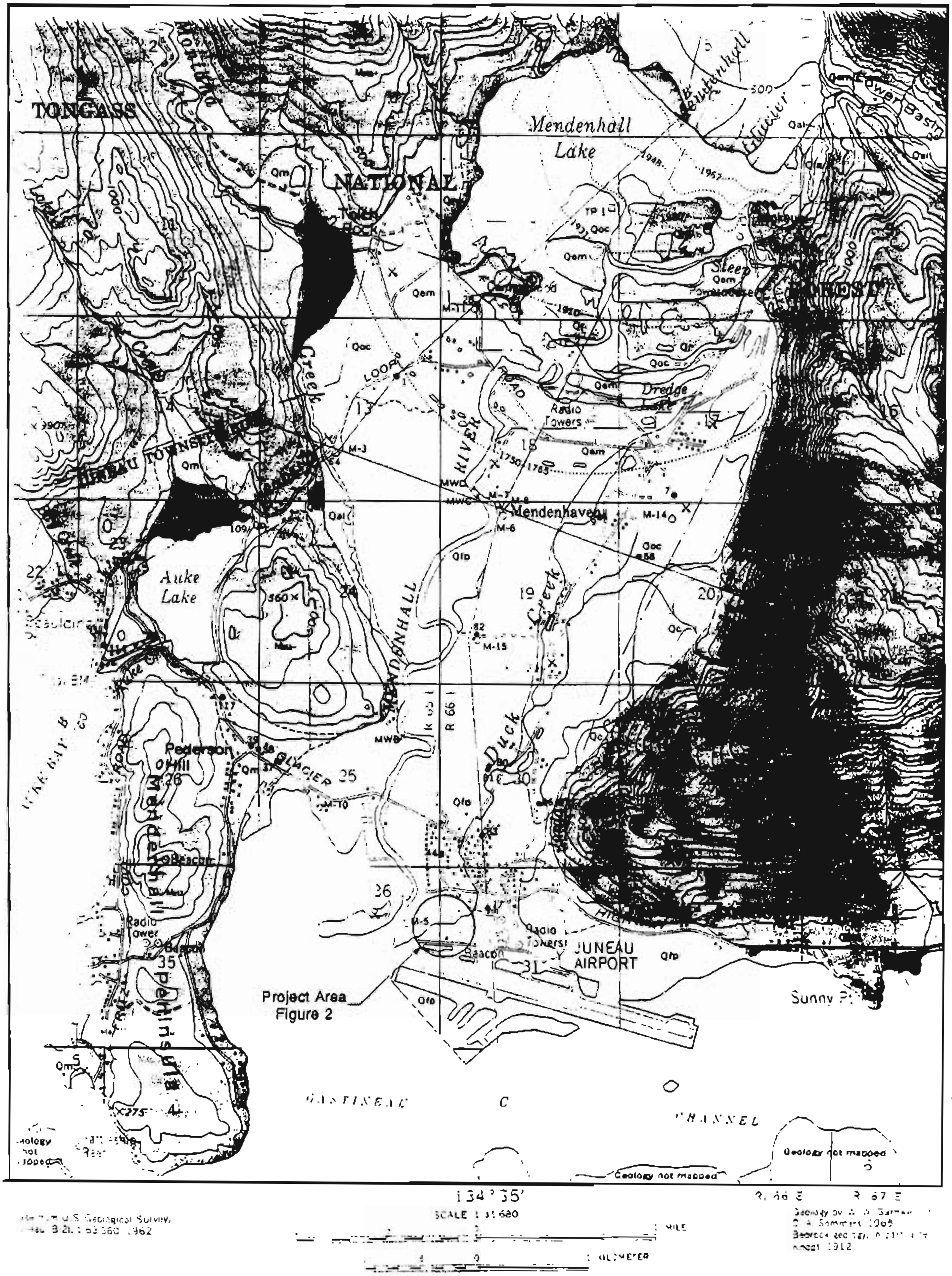
TONGASS
NATIONAL
Mendenhall
Lake
Auke
Lake
Mendenhaven
Dredge
Lake
Radio
Towers
Pederson
Hill
JUNEAU
AIRPORT
Project Area
Figure 2
Sunny Pt.
GASTINEAU
CHANNEL
Geology not mapped
58°25'
134°35'
SCALE 1:31 680
MILE
KILOMETER

Figure 1

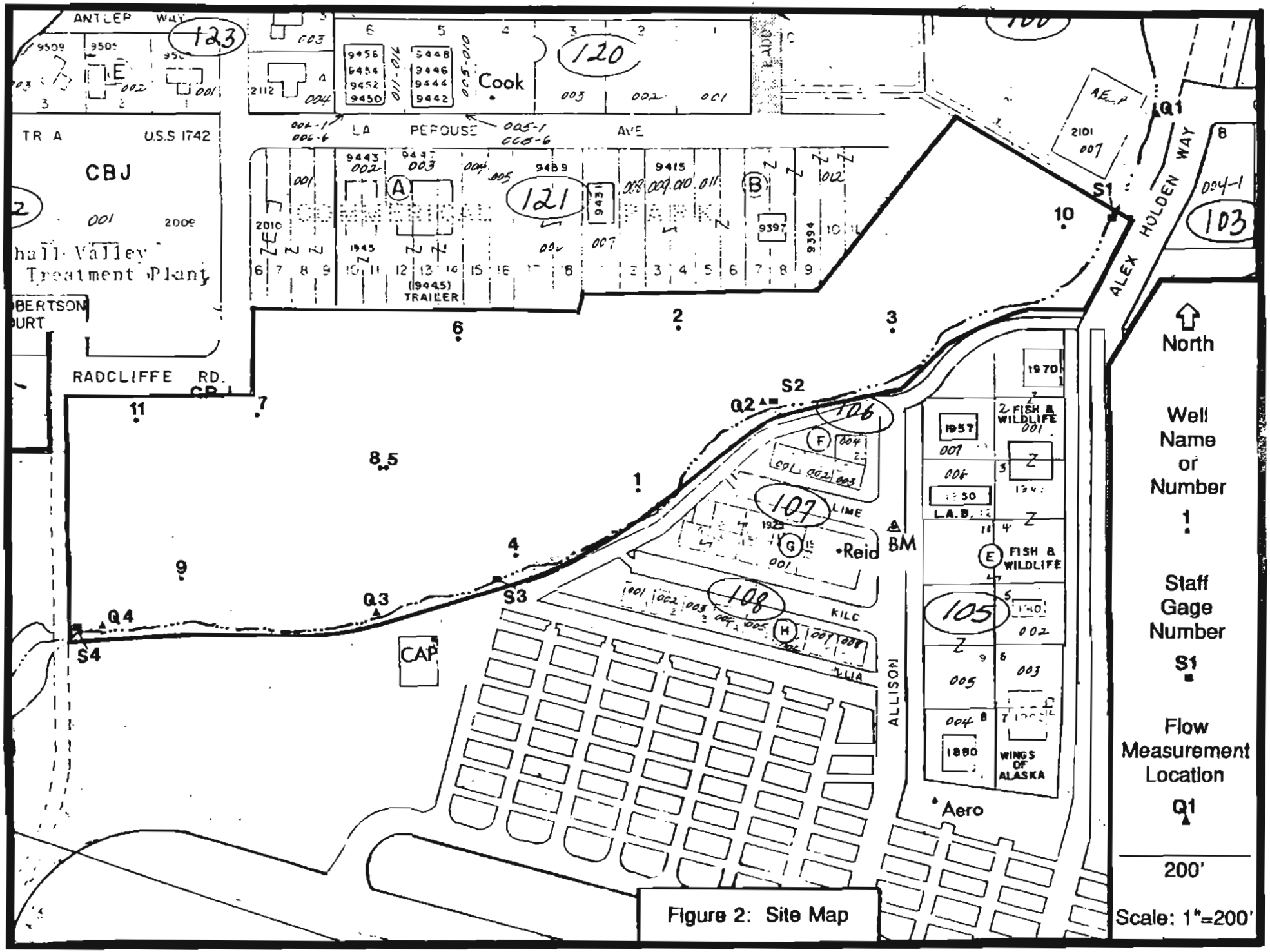

Figure 2: Site Map

Table 1. Analytical Methods

Parameter	EPA Method	Description	Detection Limit
Alkalinity	310.1	titration	0.1 mg/l as $CaCO_3$
Fluoride	340.2	ion selective electrode	0.01 mg/l
Chloride	300.0	ion chromatography	0.01 mg/l
Nitrate	300.0	ion chromatography	0.02 mg/l as N
Phosphate	300.0	ion chromatography	0.05 mg/l as P
Sulfate	300.0	ion chromatography	0.01 mg/l
Calcium	AES 0029	DCP	0.01 mg/l
Magnesium	AES 0029	DCP	0.01 mg/l
Sodium	273.1	flame AA	0.1 mg/l
Potassium	258.1	flame AA	0.1 mg/l
Iron	AES 0029	DCP	0.03 mg/l

Stream velocities used in the calculation of discharge were measured with a Price pygmy meter. Velocities were measured at six-tenths depth, with sufficient number of sections such that no one section contained over ten percent of the total flow, except in extreme low flows less than 0.25 cubic feet per second (cfs). Staff gages were installed at or near all flow measurement sites. Upper and lower staff gages were installed next to the existing culverts. The middle two staff gages were installed on half inch pipe driven six feet into the creek bed. All staff gages remained stable except S-3 which was vandalized.

Six Omnidata digital recording datapods were installed with 0-5 psig (0-11.5 feet range) pressure transducers. Two of the datapods were installed off site, one north in a private well, and one south of Duck Creek. The on site datapods were installed in wells DC-2, -4, -7, and -10. The datapods recorded water levels hourly.

Sediment samples were collected from down-hole using a non-split, two inch impact sampler and at the surface from the sediment piles. Soil samples were prepared in accordance with ASTM method D421 "Preparation of Soil Samples". The prepared samples were then analyzed according to ASTM method D422 "Particle Size Analysis of Soil Samples", using sieves with the following mesh sizes; 25mm, 18.75mm, 12.5mm, 6.7mm, 2.0mm, 1.18mm, 0.85mm, 0.6mm, 0.42mm, 0.3mm, 0.15mm, 0.106mm, and 0.075mm. All sieve results are in Appendix A.

RESULTS

Stream Flow

Stream flows were measured at four points along Duck Creek (Table 2). Site Q-1 was located upstream of the upper culvert off the project site, site Q-2 was located in the upper channelized section of Duck Creek, Q-3 was located just below the broad slow flowing middle section, and site Q-4 was located just above the outlet culvert to the site. Measured flows in Duck Creek at the site ranged from no flow (dry or frozen) to 11.5 cfs. Flows changed through the site, either gaining or loosing water depending on the water table elevation.

Table 2. Stream flow results from 8 December 1993 through 14 March 1994. All flows in cubic feet per second.

Location	12/8/93	1/12/94	1/25/94	3/14/94
Q-1	3.09	n/m[1]	Dry	9.86
Q-2	3.65	0.23[e]	Dry	11.5
Q-3	3.36	n/m[2]	Frozen	n/m[3]
Q-4	3.27	0.10[e]	Dry	11.2

n/m = not measured.
e: estimation because measurement was poor due to shallow depth and low water velocity.
1: not measured due to tide influence at site.
2: not measured due to poor (braided) cross section.
3: not measured due to obstruction in cross section.

Well levels

The water table gradient slopes from the east end of the project to the west end towards the Mendenhall River. Well DC-11 consistently had the lowest level declining to an elevation of 10.6 feet (Table 3). Water level changes in all the wells were generally constant, having a range of 2.1 to 2.9 feet, as measured with the steel tape and not the continuous recorders on the six instrumented wells. The six instrumented wells recorded lower water elevations during February when Duck Creek was dry for several weeks.

Table 3. Summary well and ground surface elevations and water level changes. All elevations in feet above mean sea level and levels in feet. Referenced to CBJ benchmark with elevation provided by R & M Engineering.

Well	Ground Elevation	Top Screen Elevation	Bottom Screen Elevation	Taped Water Levels Only		
				Max Water Level	Min Water Level	Range
DC-1	18.1	8.7	6.7	16.4	14.1	2.3
DC-2[dp]	23.8	7.9	5.9	16.6	14.3	2.3
DC-3	20.8	12.3	10.3	17.9	15.4	2.5
DC-4[dp]	17.1	8.3	6.3	16.1	13.7	2.4
DC-5	17.1	11.8	9.8	16.0	13.2	2.8
DC-6	22.8	7.0	5.0	15.9	13.3	2.4
DC-7[dp]	23.4	9.4	7.4	14.8	12.3	2.5
DC-8	17.1	3.9	1.9	16.0	13.2	2.8
DC-9	20.1	10.5	8.5	14.7	12.2	2.5
DC-10[dp]	19.3	10.9	8.9	18.7	16.0	2.7
DC-11	22.4	8.8	6.8	12.8	10.6	2.2
C-Well[dp]	25.2	n/a[2]	-15.6[3]	16.1	13.2	2.9
R-Well[dp]	n/a[1]	n/a[2]	n/a[1]	17.0	14.9	2.1
CAP	n/a[1]	n/a[2]	n/a[1]	15.8	13.4	2.4
A-Well	25.4	n/a[2]	16.0[3]	17.0	Dry	>1.0

dp: Data pod installed, minimum and maximum values for the entire project time will be different.
1: Located in building--ground surface unknown, depth unknown due to pump in well.
2: No screen in well.
3: Open bottom well.

Geochemistry

Appendix B lists the results of all samples collected. Total Dissolved Solids (TDS) ranged from 74.5 mg/l in Duck Creek at the lower culvert to 3,310 mg/l in DC-8, the deep well in the central cluster (Table 4). Four samples (Duck Creek, DC-10, -6, and -3) had TDS less than 100 mg/l, two samples (DC-2 and -7) had TDS between 100 and 1,000 mg/l, and four samples (DC-4, -5, -8, and -9) had TDS greater than 1,000 mg/l.

The pH of all the samples was slightly acidic and ranged from six to seven. Dissolved iron ranged from less than detection limits to 9.6 mg/l, and total iron ranged from 0.03 to 11.3 mg/l.

Table 4. Summary of sample results from 11 November 1993. All results in mg/l, except pH (units). <DL=less than detection limits.

Sample Location	pH	Cl	TDS	Fe dissolved	Fe total
Duck Creek	6.96	2.95	74.5	<DL	1.49
DC-2	6.12	11.7	113	1.9	11.3
DC-3	6.24	6.89	98.2	6.5	7.06
DC-4	6.27	556	1,510	<DL	5.22
DC-5	6.69	624	1,200	<DL	1.02
DC-6	6.45	14.2	96.6	9.6	9.64
DC-7	6.05	347	853	<DL	0.03
DC-8	6.21	1,740	3,310	<DL	0.37
DC-9	6.44	1,100	2,210	<DL	0.48
DC-10	6.38	2.93	86.3	7.0	8.92

Soil data

Soils on the right bank of the present creek location generally consist of a thin layer of silt and organics overlying thick layers of sand, sand and gravel, and gravel with thin stringers of silt and clay interdispersed. The north side of the site has a topographic bench that consists of fine sands, silts, and clays (Figure 3). Soil borings with the impact sampler were conducted next to DC-2 and at DC-11. The overlying clay was found to be up to ten feet thick, but not laterally continuous. At DC-6, the silt and clay layer is only 2.5 feet thick, with gravels and sand below. DC-6 is in a well developed stand of trees confirming that the thin clay layer found at this site allows the soil to drain.

DISCUSSION

Stream flow

Four stream flow measuring sites were located along Duck Creek through the project area to evaluate the ground water/surface water interactions by conducting seepage runs. Duck Creek in the upper reach between Q-1 and Q-2 (Figure 2) gains base flow from the ground water system during normal flow conditions. The water table is higher in elevation at DC-10 than

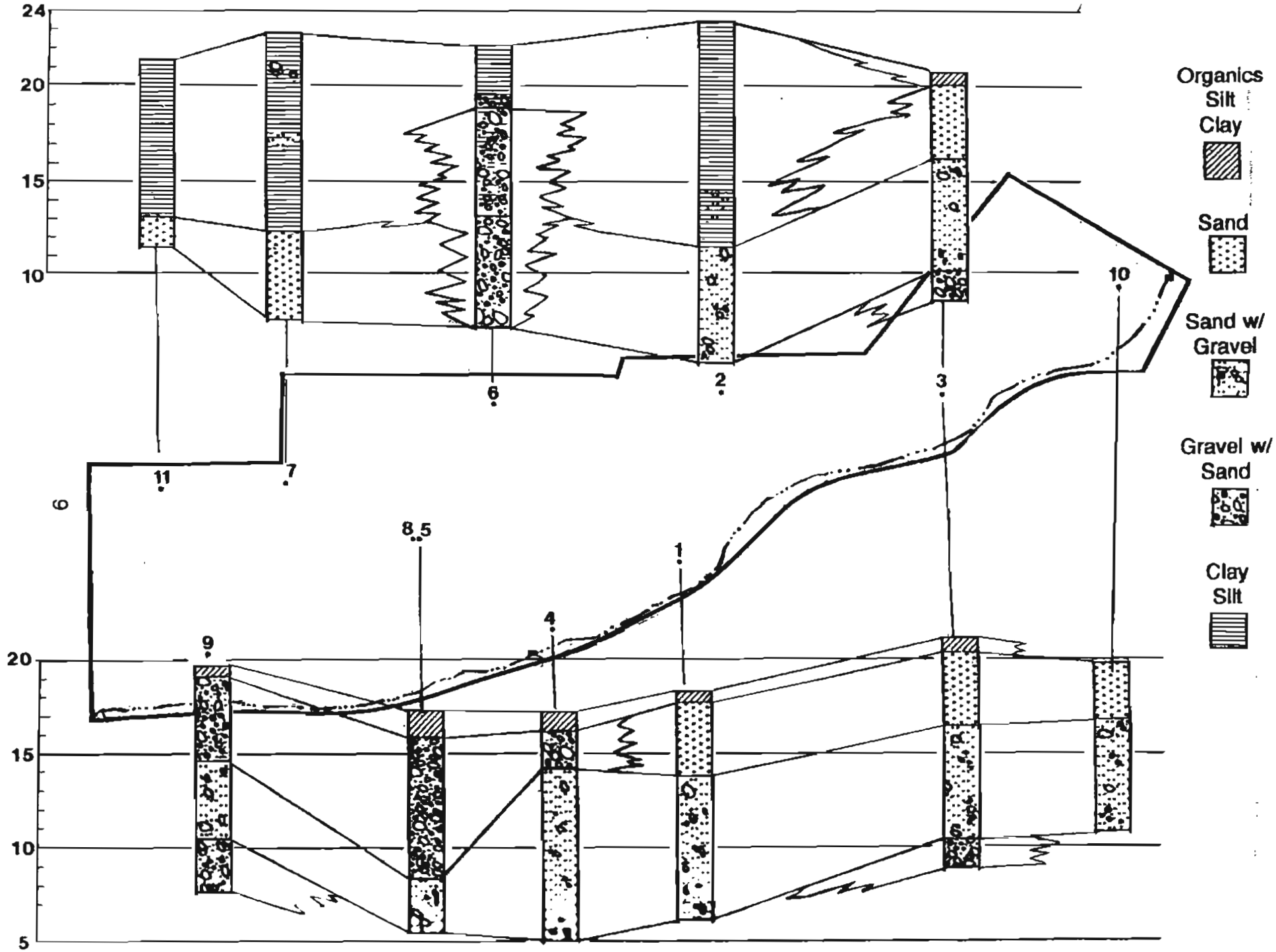

Figure 3: Duck Creek Lithology with Approximate Elevations, in feet

the water surface in Duck Creek (see the **Ground water levels** section). On 8 December 1993 Duck Creek gained 0.56 cfs between Q-1 and Q-2, and on 14 March 1994 it gained 1.6 cfs, or 18 and 17 percent increases, respectively.

In the central area around DC-4, the ground water system is generally in equilibrium with Duck Creek. Water is not consistently moving into or out of the ground water system, with the exception of low flow conditions when the water table drops below Duck Creek and the middle reach between Q-2 and Q-3 loses water. From the 8 December measurements it is apparent that some water is lost from this reach, but the majority is probably lost in the lower section. This reach widens significantly from the upper reach around Q-2 and the water velocity decreases.

The lower reach from Q-3 to Q-4 again becomes channelized, and the flow velocity and gradient increase. Between Q-3 and Q-4, Duck Creek is above the water table and water losses from Duck Creek to the ground water system were measured.

Tidal effects

High tides can effect Duck Creek through the entire length of the project site. The lower culvert bottom elevation is approximately 12.6 feet, and any published tide greater than 13 feet should cause some backwater flow into Duck Creek. One stream flow measurement could not be done at Q-1, the upstream site, because a high tide (+18.7 feet) occurred during a low flow period and the flow direction was temporarily reversed.

All tide elevations in this report are referenced to published Juneau tides, and not the corrected values for Auke Bay. High tides ranged from approximately 10.5 to 20.5 feet. Tides up to 18 feet are contained in the stream channel, but tides in excess of 18 feet inundate the central area from DC-4 to DC-5 (Figure 4). The area between DC-4 and DC-5 is topographically lower than the stream bank and any brackish water that floods the area during high tides becomes trapped and infiltrates to the ground water. During times of high Duck Creek flow, brackish water backs up to the CAP building and fresh water generally floods the central area. In November during high Duck Creek flows (not measured, but probably in excess of 15 cfs) with a high tide of 20.5 feet, the conductivity downstream of the CAP building was 1,600 micro-mhos/cm, at the CAP building it was 123 micro-mhos/cm, and at DC-5 and -4 the conductivity was between 110 and 115 micro-mhos/cm. On 12 January 1994 Duck Creek flows were less than 0.25 cfs, the tide was 18.7 feet, and the conductivity of the water entering the central area between DC-4 and DC-5 was greater than 35,000 micro-mhos/cm.

During high Duck Creek flows the ground water system is not influenced significantly by the recharge of brackish water except in the lower reach near DC-9. During low flows, brackish water backs up past the upper culvert and recharges to the ground water system. The time the upper reaches of Duck Creek have brackish water in them and can recharge the aquifer

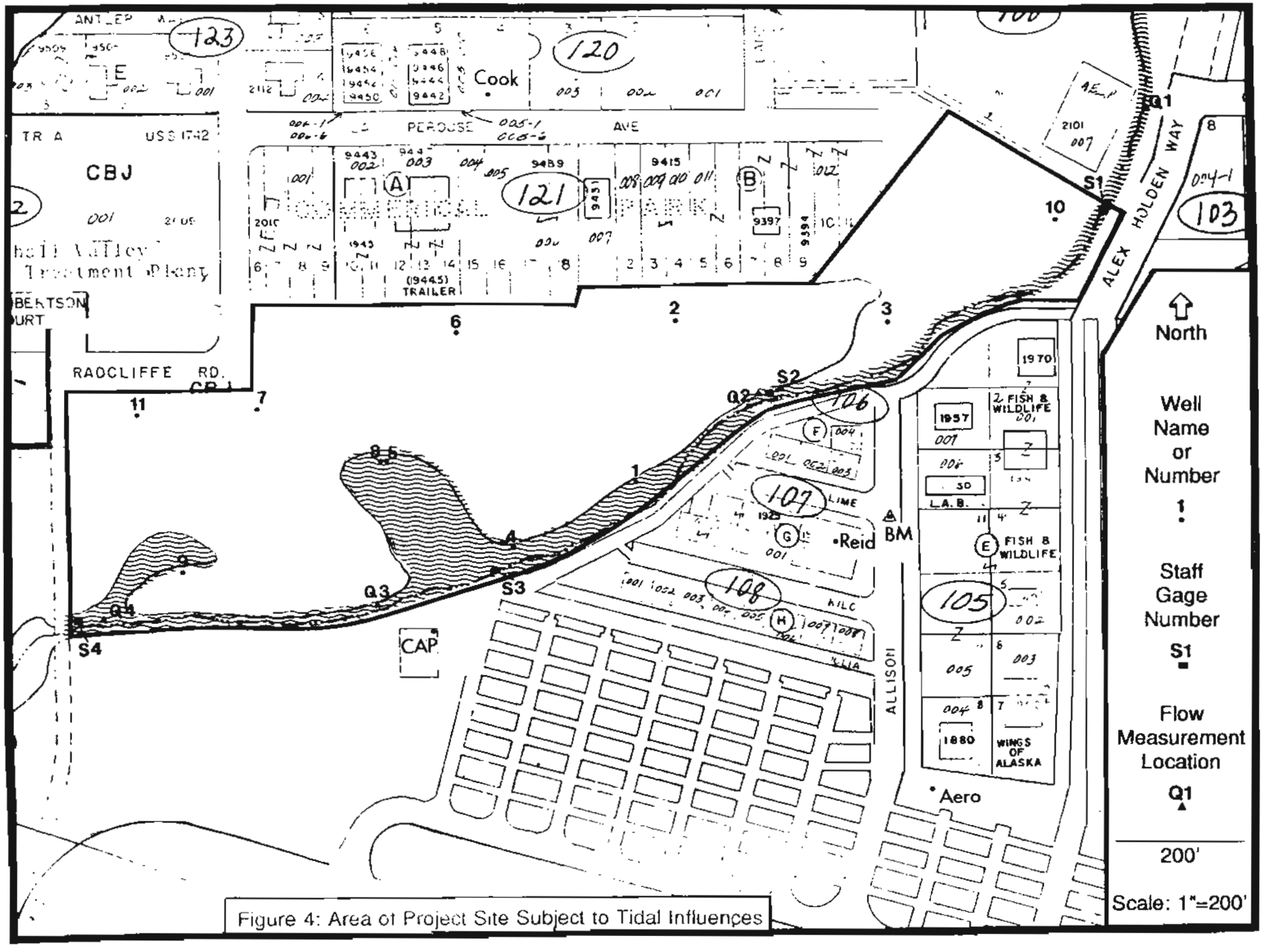

Figure 4: Area of Project Site Subject to Tidal Influences

system is small and dependent on the tidal cycle. Even though the brackish water is in the creek bed for a short time, it is recharged to the up-gradient areas (see Geochemistry section).

Ground water levels

Well water levels were measured periodically throughout the winter with a steel tape, and hourly with data loggers for six wells. The results from all measurements are contained in Appendix C for the periodic measurements, and Appendix D for the data loggers. Ground water elevations are highest in the east end of the site, decreasing to a minimum at DC-11. The water table provides base flow in the upper (east) third of the site, is recharged from Duck Creek in the lower (west) third of the site, and in the middle third the ground and surface waters are in approximate equilibrium (Figure 5). The actual equilibrium point (the point where the ground water and surface water systems are at the same elevation) shifts within this middle third of the site, depending on precipitation. When precipitation decreases or the temperature falls below freezing, the ground water in the east end drops below the stream bottom elevation and Duck Creek goes dry. This usually happens in the summer during periods of little or no precipitation and in the winter during cold conditions. When the flow in Duck Creek diminishes, the water table slopes directly to the Mendenhall River with no influence from Duck Creek (Figure 6).

Figures 7 and 8 are graphs of the R-Well and DC-10 water levels over time (graphs for all six wells are in Appendix D). Both graphs show similar shapes with water levels controlled by tidal events superimposed on rain fall (runoff) events. Figure 7 has daily rainfall amounts from the Juneau airport superimposed on the well water levels and the tidal peaks labeled. The high tides are seen as sharp spikes (more pronounced in R-Well) and the rainfall events are seen as broad humps similar to stream hydrographs.

An infiltration test was done at DC-4 during an increasing tide event. On 28 December 1993 during a 17.7 foot high tide event, a temporary staff gage was installed in Duck Creek next to DC-4. Both the Duck Creek surface water elevation and well water elevation were logged at five minute intervals (Figure 9). Duck Creek surface elevation responds rapidly, peaking at the high tide then decreases. Well DC-4 increased for 26 minutes after the high tide peak then leveled off. Measurements were stopped after DC-4 leveled off for four consecutive measurements. It is apparent from this test that the surface and ground water are hydraulically connected with each other.

Geochemistry

Samples for this study were only analyzed for inorganic geochemistry, but oil sheens were commonly seen on the water through out the site and upstream near Q-1. Objects in the stream bed (gravel, plants, bottles, car parts) were stained red.

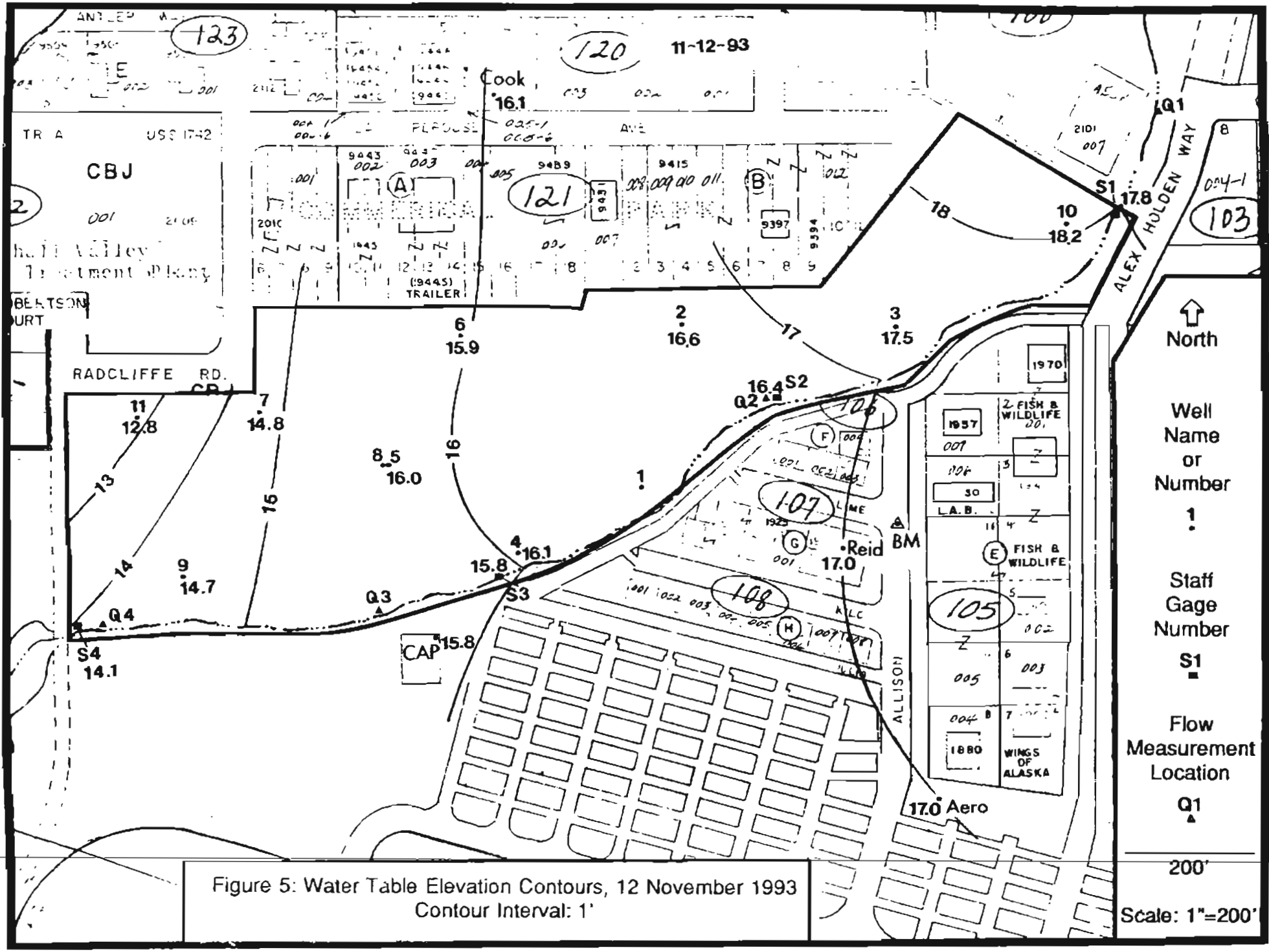

Figure 5: Water Table Elevation Contours, 12 November 1993
Contour Interval: 1'

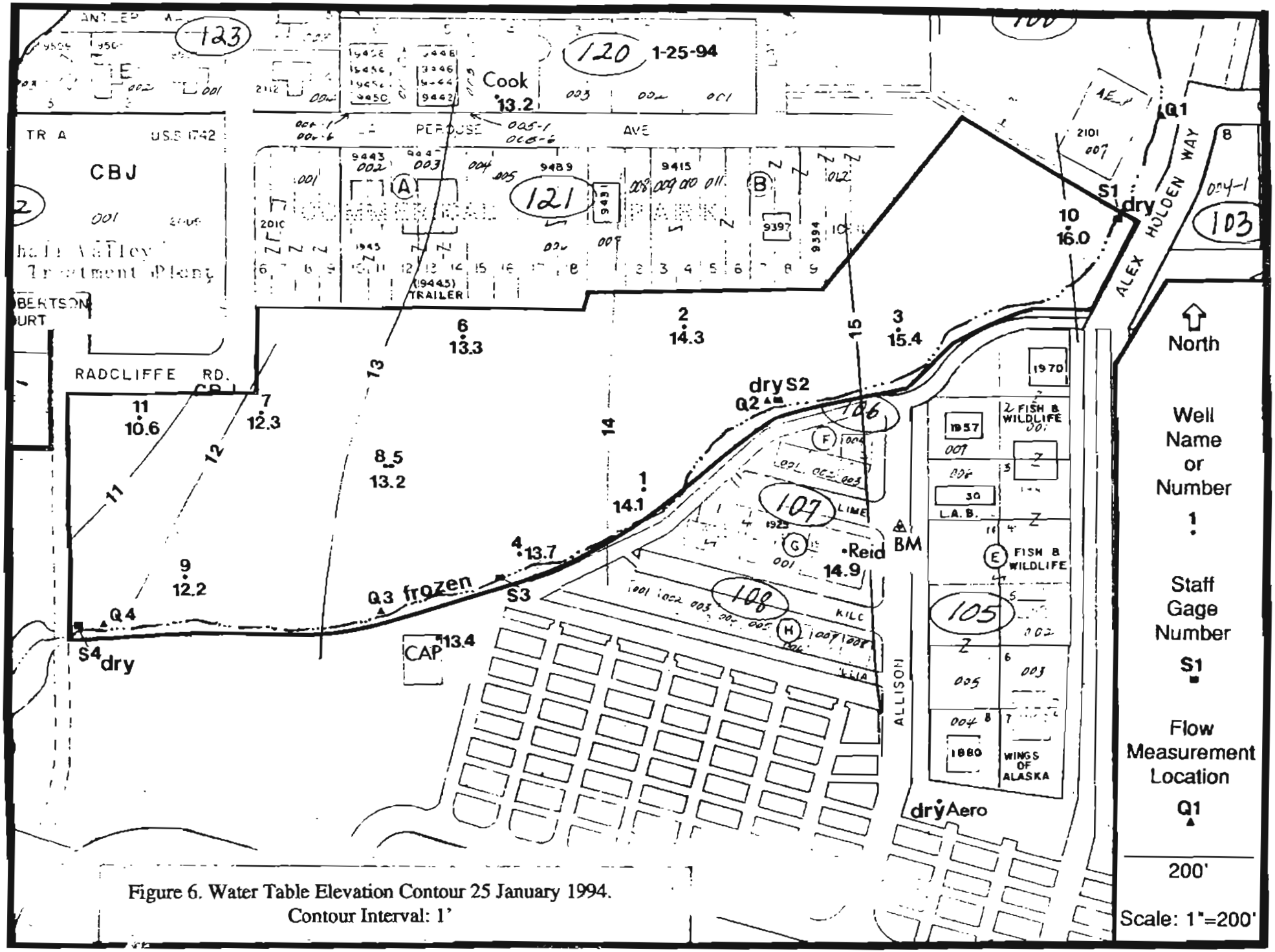

Figure 6. Water Table Elevation Contour 25 January 1994.
Contour Interval: 1'

elevation (feet)
14.00
15.00
16.00
17.00
18.00
06-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
04-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
01-Jan-94
08-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
05-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
05-Mar-94
12-Mar-94
19-Mar-94
HT
HT
HT
HT
HT
HT
HT
HT
snow
snow
HT = high tide event
0
0.5
1.5
2
2.5
precipitation in inches of rainfall

R-Well

DC-10
elevation (feet)
19.00
18.00
17.00
16.00
15.00
14.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
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12-Mar-94
19-Mar-94

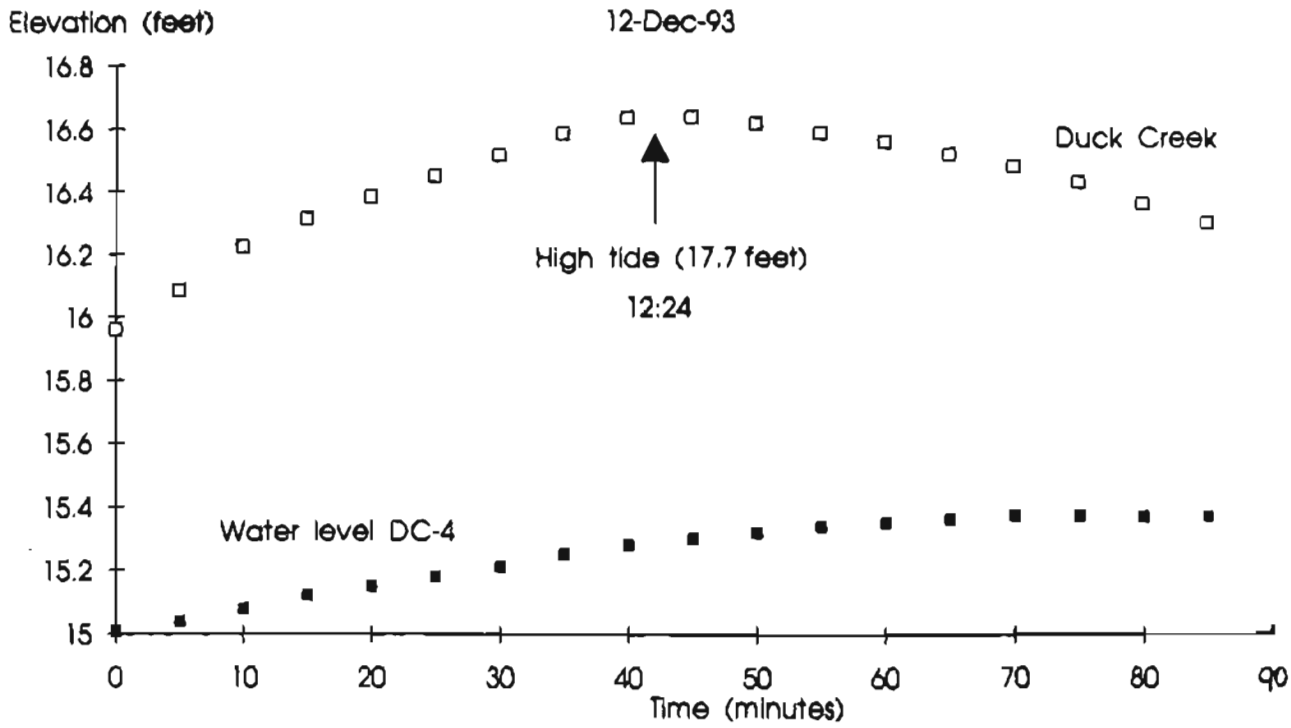


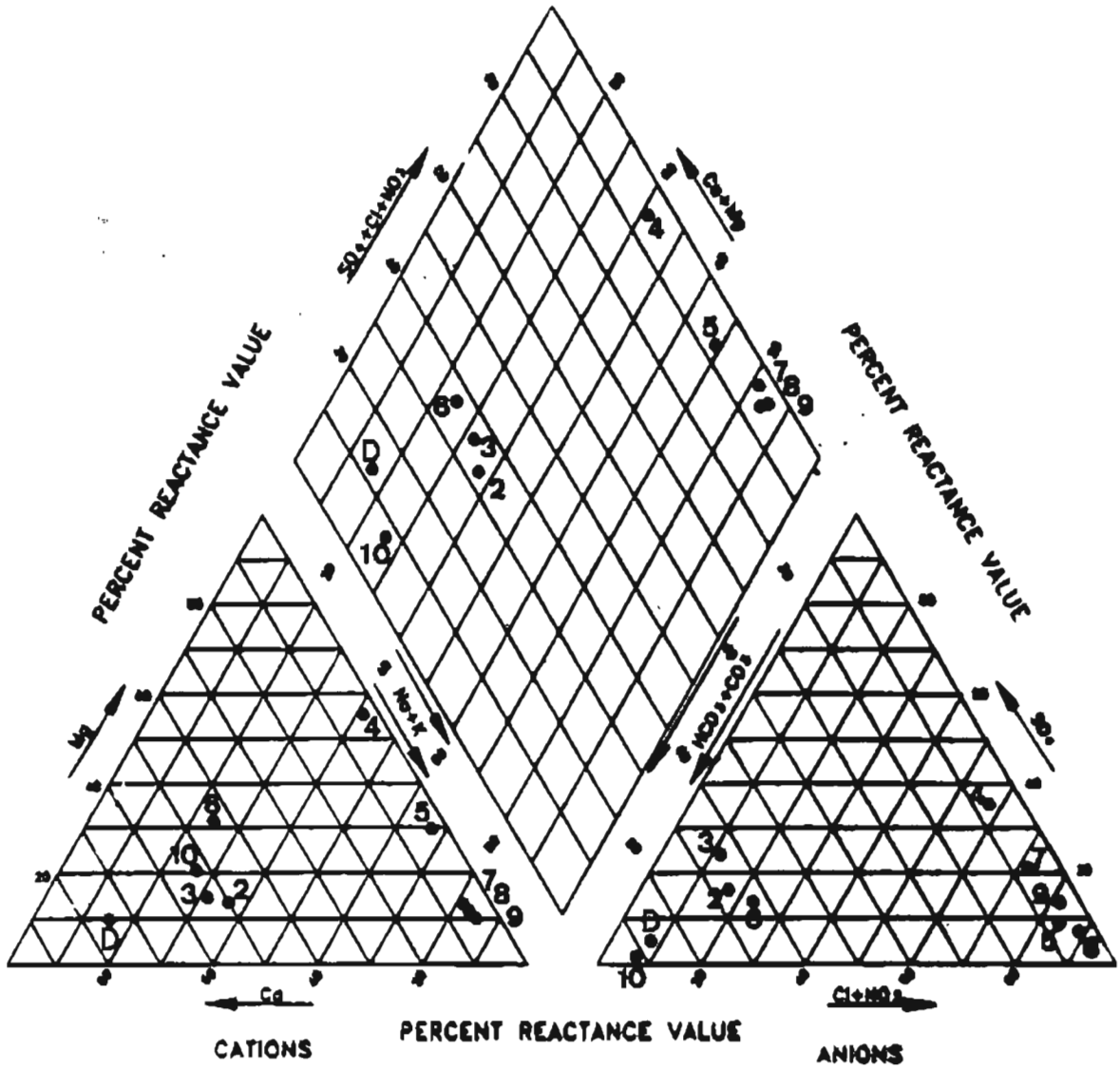
Figure 9: Changes in Duck Creek Surface Water Elevation and Well DC-4 Ground Water Elevation During a High Tide Event

With the exception of DC-10, Duck Creek water quality is significantly different from the ground water over most of the site (Figure 10). Figure 10 is a trilinear diagram that represent the major-ion composition in percentage of total equivalents (Freeze and Cherry, 1979). The trilinear diagram allows the chemical composition of numerous samples to be represented on a single graph to observe groupings and trends between water types. Water types that fall on a line generally represent a mixing between the two end members (Freeze and Cherry, 1979). In the case of Duck Creek, the two end members are the fresh calcium-bicarbonate water of Duck Creek, and sodium-chloride dominated brackish water. Water from DC-10 is similar to Duck Creek water type, but shows some residual influence from high tide events. The ground water can be divided into three groups, the first consists of Duck Creek surface water and is characterized by low total dissolved solids (75 mg/l) and is a calcium-bicarbonate type of water. The second group (DC-2, -3, and -6) has slightly elevated TDS, around 100 mg/l, and is a calcium-bicarbonate dominated water type with slight amounts of magnesium, sodium, sulfate, and chloride. The third group (DC-4, -5, -7, -8, and -9) is significantly elevated in TDS (all >850 mg/l) and is a sodium-chloride dominated water type. Overall, DC-10 water type is similar to Duck Creek water, but the cations are similar to the second major group above. The sulfate concentration in DC-4 is probably elevated compared to the other wells in the sodium-chloride dominated group because of the short travel distance from Duck Creek to the well. Cation-exchange reactions and sulfate reduction in the aquifer are probably responsible for reducing the relative amount of sulfate seen in the other wells (Hem, 1985).

At high tide during low flow events, brackish water is recharged to the ground water system. High tide events capable of supplying significant brackish recharge occur approximately every two weeks for a limited period of time each day. The low flow events generally do not last longer than four to six weeks, so the amount of possible brackish water recharge in the upper reach is limited. Wells DC-2, -3, and -6 do not receive direct infiltration of brackish water, but have water types that result from the mixing of ground water with brackish water recharged from upper Duck Creek during high tides. Greater recharge occurs between DC-4 and -5 due to brackish water trapped in the low-lying area infiltrating to the ground water. Wells DC-4, -5, -7, -8, and -9 are all within or down gradient of the central area. These wells all show high TDS concentrations and are sodium-chloride dominated waters.

To preclude the possibility of other sources of sodium-chloride contamination of the ground water, the calcium-magnesium ratios were calculated. Magnesium concentrations in seawater are much greater than calcium, and a low calcium to magnesium ratio is usually indicative of seawater intrusion. The calcium-magnesium ratios for DC-4, -5, -7, -8, and-9 (all the sodium-chloride type waters) show low ratios compared to the rest of the samples (Table 5).

Wells DC-5 and -8 were installed in a cluster with DC-5 screened between 9.8 and 11.8 feet in elevation, and DC-8 between 1.9 and 3.9 feet in elevation. The water level elevations in the two wells were always the same, indicating that no vertical gradient existed. The sample results do exhibit a geochemical gradient between the two wells. The TDS of DC-5, although elevated with respect to the other samples, is significantly less than DC-8, 1,200 mg/l



Sample Location	pH	Cl	TDS	Fe dissolved	Fe total
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DC-5	6.69	624	1,200	<DL	1.02
DC-6	6.45	14.2	96.6	9.6	9.64
DC-7	6.05	347	853	<DL	0.03
DC-8	6.21	1,740	3,310	<DL	0.37
DC-9	6.44	1,100	2,210	<DL	0.48
DC-10	6.38	2.93	86.3	7.0	8.92

Figure 10: Trilinear Diagram of Major-Ion Composition
In Percentage of Total Equivalents

compared to 3,300 mg/l. The geochemical gradient probably exists because direct infiltration of precipitation and fresh water flooding during high flow events forms a fresh water lens on the brackish water system due to density differences. The salinity probably increases with depth through out the study site, but is more pronounced down-gradient from DC-4 and -5 towards the Mendenhall River.

Table 5. Ca, Mg, and Ca:Mg ratio results from 11 November 1993.

Sample Location	Ca mg/l	Mg mg/l	Ca:Mg Ratio
Duck Creek	20.9	1.96	10.7
DC-2	19.0	3.88	4.90
DC-3	17.3	3.47	4.99
DC-4	5.91	173	0.03
DC-5	2.67	83.1	0.03
DC-6	15.2	7.51	2.02
DC-7	10.6	25.1	0.42
DC-8	34.9	109	0.32
DC-9	26.5	78.7	0.34
DC-10	12.9	3.55	3.63

The amount of dissolved iron in both the ground and surface water systems is related to the amount of dissolved oxygen (DO) in the water. Surface water that is fully aerated should not contain more than a few micrograms per liter of uncomplexed dissolved iron in the pH range measured at Duck Creek (Hem, 1985). The amount of DO in freshwater in equilibrium at five degrees celsius is 12.75 mg/l (Hem, 1985), which approximates the DO from Duck Creek, 12.4 mg/l (Table 6). Ground water systems with pH values between six and eight can retain dissolved iron concentrations up to 50 mg/l, but tend to have final concentrations near five mg/l (Hem, 1985). Wells DC-2, -3, -6, and -10 have relatively high dissolved iron levels (and corresponding low DO levels, < 2.5 mg/l) and are up gradient from major surface water recharge areas. Although DC-3 and DC-10 are near Duck Creek, the water table and stream flow measurements indicate that the ground water flow direction is from these wells to Duck Creek. All wells (with the exception of DC-4) that had dissolved iron less than the detection limit (0.03 mg/l) had correspondingly high DO values (>7 mg/l). As oxygenated water moves through the ground water system, it reacts with oxidizable material along the flow path and decreases. The primary reacting materials are organic materials and reduced inorganic minerals, such as pyrite (Hem, 1985). As the DO decreases, the amount of iron that can be dissolved increases. This dissolved iron is carried in the ground water until the ground water

returns to Duck Creek as base flow. As the surface water becomes oxygenated, the dissolved iron precipitates out as a red flock.

Table 6. Dissolved oxygen, dissolved iron, and total iron results from 11 November 1993. All results in mg/l, <DL=less than detection limits.

Sample Location	Dissolved oxygen	Fe dissolved	Fe total
Duck Creek	12.4	<DL	1.49
DC-2	2.3	1.9	11.3
DC-3	2.2	6.5	7.06
DC-4	2.3	<DL	5.22
DC-5	7.7	<DL	1.02
DC-6	1.8	9.6	9.64
DC-7	7.3	<DL	0.03
DC-8	9.2	<DL	0.37
DC-9	11.6	<DL	0.48
DC-10	2.0	7.0	8.92

New site conditions

Duck Creek is proposed to be moved to the north side of the airport property. If the creek inlet and outlet elevations remain the same, the recharge-discharge function of the stream bed would change because of significant differences in the sediments in the north central area. Presently Duck Creek has downcut or been entrenched in sand and gravel deposits that allow for direct interaction between the ground and surface waters. At the proposed location, a large portion of the new stream bed would be in the clay deposit. Locating the stream bed in the clay will reduce the interaction between the ground and surface waters over most of the reach with the exception of the area around DC-6 and DC-11. At these areas Duck Creek would be perched above the water table and would lose water. The water table elevation is lowest in the north-west corner of the site, as seen in DC-11 water elevations (Table 3). This pronounced decrease is probably related to either the close proximity of the Mendenhall River (approximately 700 feet) which is up to fifteen feet lower than the site water table, or the local sewage treatment plant (Figure 2). The treatment plant foundation was excavated almost to 40 feet below ground surface (Sid Wilden, pers. comm), and the disturbed area around the treatment plant foundation may be acting as a french drain from the study area to the Mendenhall River. If a preferential ground water flow path does exist from the site towards the treatment plant, moving Duck Creek closer could increase the flow through this

area. Moving Duck Creek and keeping the surface water elevation approximately the same could change the water table elevations around the treatment plant because the hydraulic gradient from the site to the Mendenhall River would increase.

Development at the site would channelize all tide waters to within the stream channel. This would significantly reduce the amount of salt water that could be recharged into the ground water system, and may reduce the salinity of the water in the aquifer.

SUMMARY

This project, as originally planned, was to measure well water levels monthly, but the availability of the continuous recording data loggers provided the opportunity to fully observe the change in water levels at the site. Geochemical sampling provided conformation of the tidal cycle effect on the ground water system and detailed the water types found at the site. Key points are summarized in the following:

1. Ground water quality at the site varied form low TDS calcium-bicarbonate type water to high TDS sodium-chloride type water from brackish water recharged during high tides.

2. The present stream is incised into sand and gravel deposits and has a direct hydraulic connection with the ground water system. During most flow conditions greater than three cfs, Duck Creek gains water from the ground water system in the upper third of the site, loses water in the lower third of the site, and the central third does not gain or lose significant amounts of water.

3. The Mendenhall River is the discharge point for the ground water system at the site. Duck Creek locally modifies the water table. A french drain type of flow system may exists between the site and the Mendenhall River due to the treatment plant foundation excavation.

4. Duck Creek goes dry through the entire site during low flow events resulting from frozen conditions in the winter or lack of precipitation in the summer.

5. Moving Duck Creek to the north edge of the site would reduce the surface/ground water interaction because of the clay layer located north of the present stream. This clay layer will not prevent Duck Creek from going dry because Duck Creek goes dry for significant distances upstream of the site.

ACKNOWLEDGEMENTS

This project was funded by the City and Borough of Juneau. I would like to thank Jeff Carpenter and Ben Pollard of the City Engineering Department for their time in gathering information on the site and the sewage treatment plant. I would like to thank Scott Ray for helping with the installation of the wells and getting the project set up (when he worked for the Department of Natural Resources), and for his technical review of the final data and report (as an employee of Shannon and Wilson Consulting Engineers). I would like to thank Jim Vohden of the Department of Natural Resources, Division of Water for his help in analyzing the water quality samples and providing technical review of the report. And finally I would like to thank Keven Brownlee who help survey the well top of casing elevations during the only field day when rain coats were needed.

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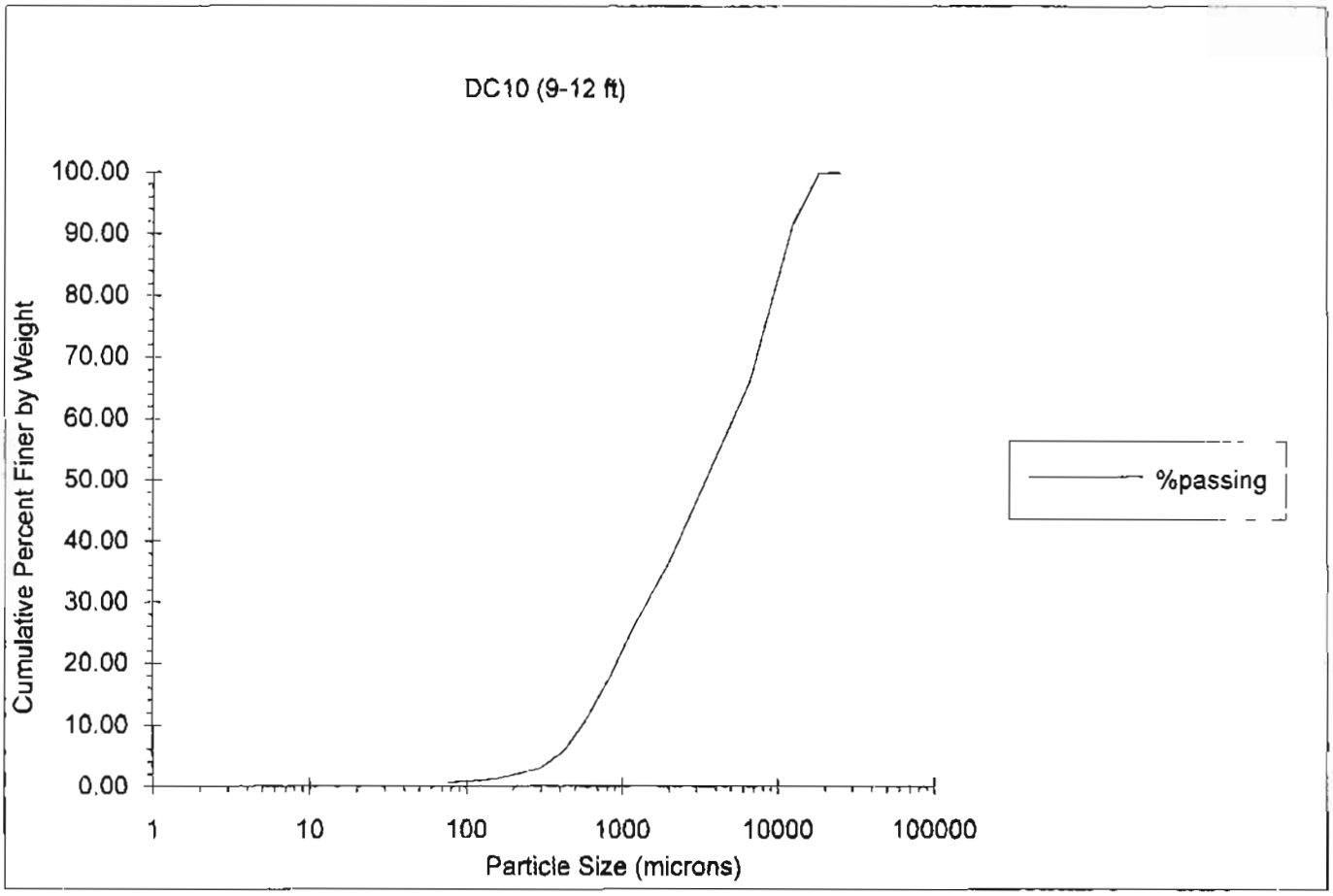
Appendix A

Sample	DC10	Initial Sample Mass (g)	736.3
Depth	9-12ft	Final Sample Mass (g)	735.7

Sieve Analysis

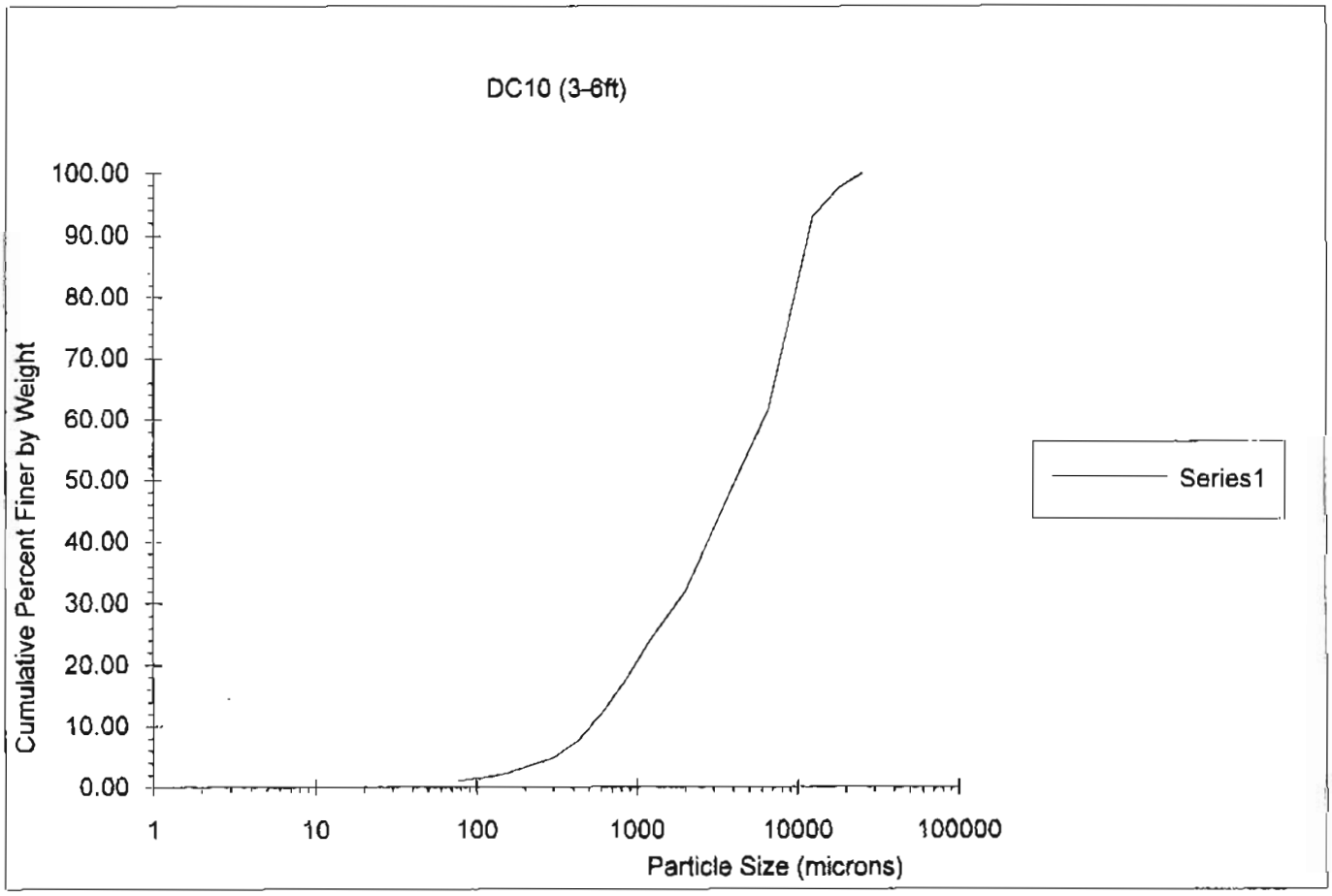
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	0	0	0.00	100.00
12500	61.5	61.5	8.36	91.64
6700	185.6	247.1	33.59	66.41
2000	220.2	467.3	63.52	36.48
1180	77.9	545.2	74.11	25.89
850	57.4	602.6	81.91	18.09
600	50	652.6	88.70	11.30
425	40	692.6	94.14	5.86
300	20.8	713.4	96.97	3.03
150	13.4	726.8	98.79	1.21
106	2.5	729.3	99.13	0.87
75	1.7	731	99.36	0.64
pan	4.7	735.7	100.00	0.00



Sample	DC10	Initial Sample Mass (g)	527.1
Depth	3-6ft	Final Sample Mass (g)	526.5

Sieve Analysis

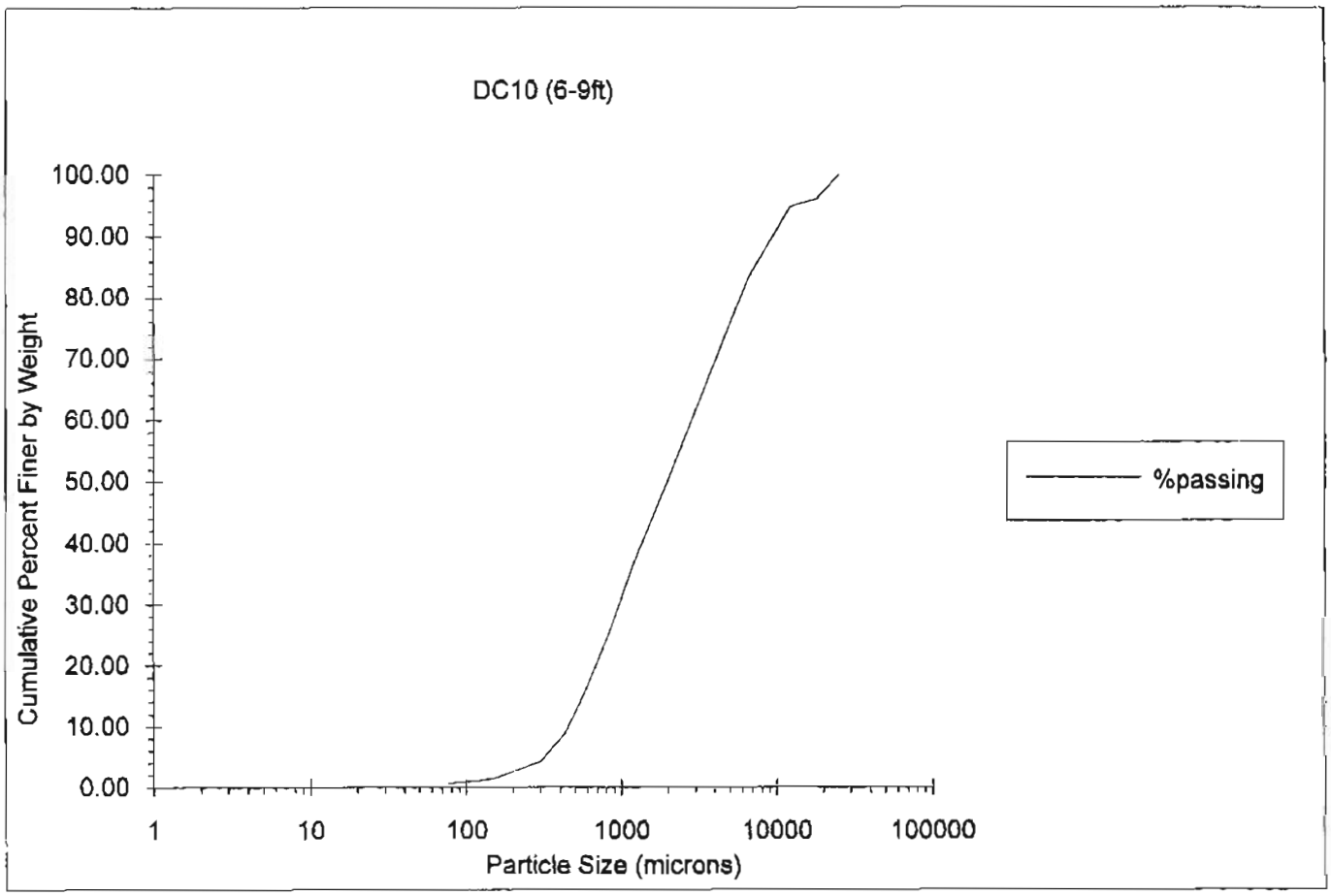
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	12	12	2.28	97.72
12500	24.6	36.6	6.95	93.05
6700	164.4	201	38.18	61.82
2000	157.7	358.7	68.13	31.87
1180	43.2	401.9	76.33	23.67
850	32	433.9	82.41	17.59
600	29.3	463.2	87.98	12.02
425	23.5	486.7	92.44	7.56
300	14.1	500.8	95.12	4.88
150	13.9	514.7	97.76	2.24
106	3.5	518.2	98.42	1.58
75	2.4	520.6	98.88	1.12
pan	5.9	526.5	100.00	0.00



Sample	DC10	Initial Sample Mass (g)	735.2
Depth	6-9ft	Final Sample Mass (g)	735.0

Sieve Analysis

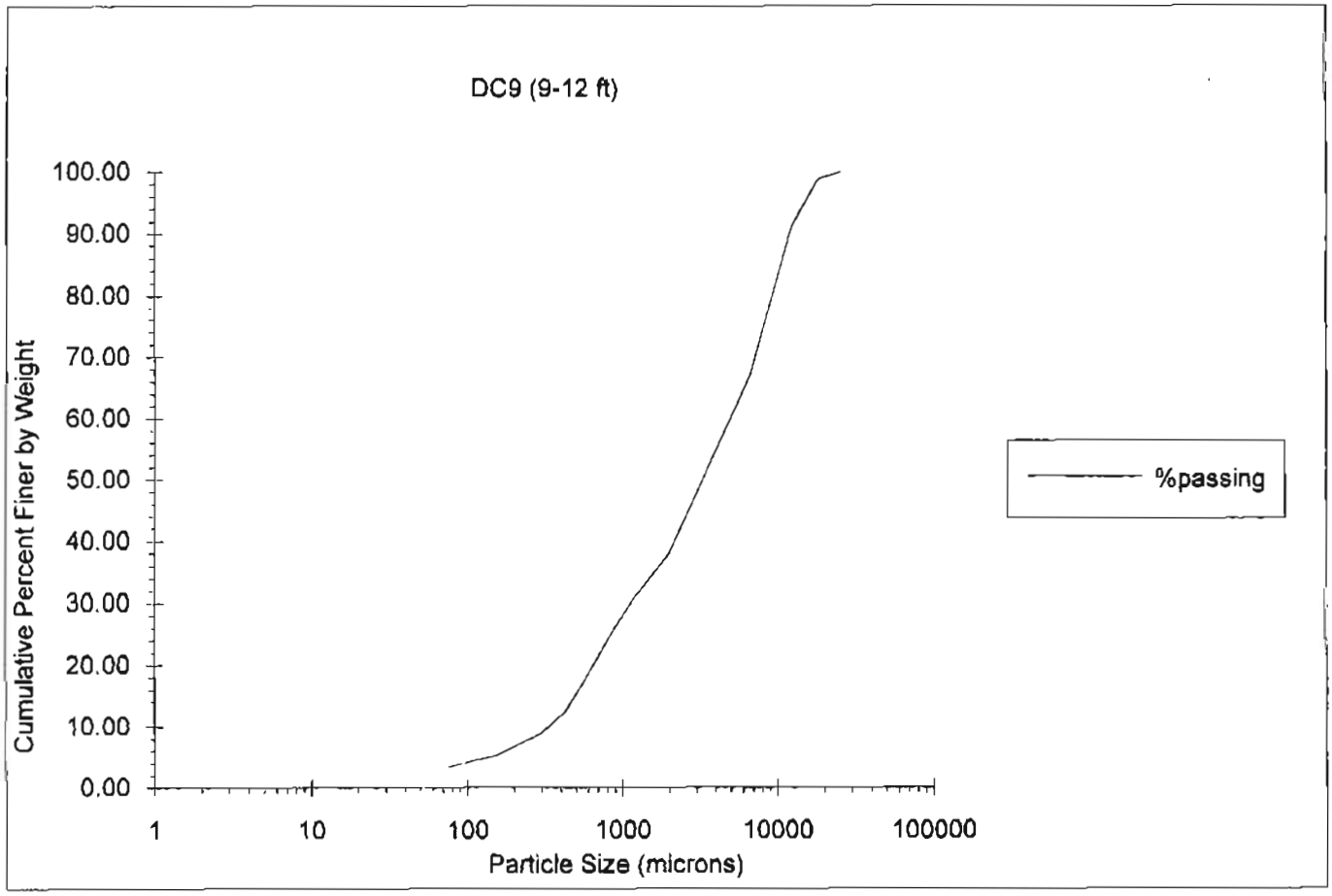
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	28.5	28.5	3.88	96.12
12500	8.4	36.9	5.02	94.98
6700	84.5	121.4	16.52	83.48
2000	246	367.4	49.99	50.01
1180	101.6	469	63.81	36.19
850	76.4	545.4	74.20	25.80
600	68.5	613.9	83.52	16.48
425	57.9	671.8	91.40	8.60
300	31.7	703.5	95.71	4.29
150	20.6	724.1	98.52	1.48
106	3.7	727.8	99.02	0.98
75	2.3	730.1	99.33	0.67
pan	4.9	735	100.00	0.00



Sample	DC9	Initial Sample Mass (g)	1209.2
Depth	9-12ft	Final Sample Mass (g)	1205.9

Sieve Analysis

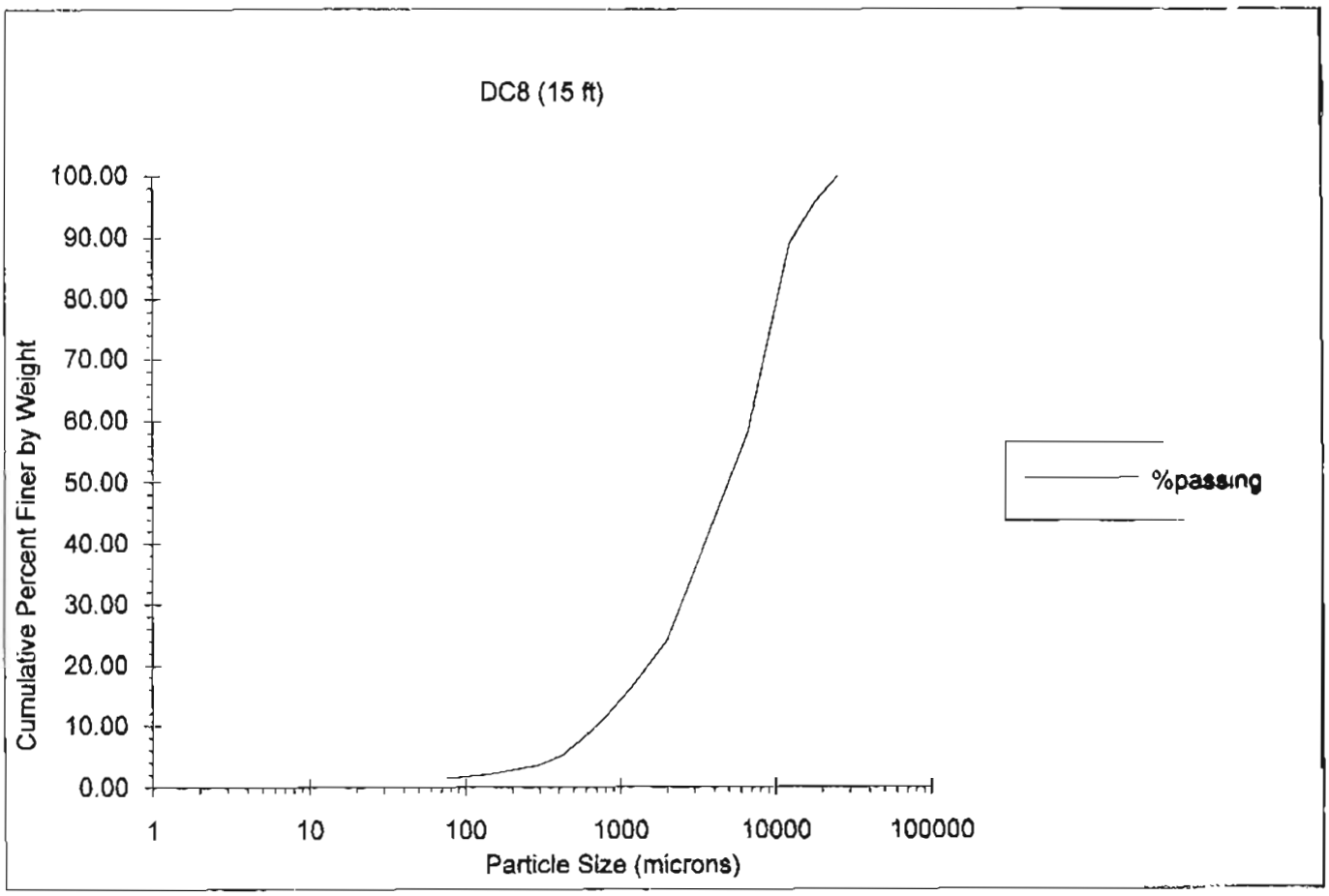
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	13.6	13.6	1.13	98.87
12500	89.2	102.8	8.52	91.48
6700	295.7	398.5	33.05	66.95
2000	349.4	747.9	62.02	37.98
1180	87.1	835	69.24	30.76
850	67.9	902.9	74.87	25.13
600	79.7	982.6	81.48	18.52
425	73.7	1056.3	87.59	12.41
300	42.2	1098.5	91.09	8.91
150	44.9	1143.4	94.82	5.18
106	10.3	1153.7	95.67	4.33
75	11	1164.7	96.58	3.42
pan	41.2	1205.9	100.00	0.00



Sample	DC8	Initial Sample Mass (g)	952.2
Depth	15 ft	Final Sample Mass (g)	950.3

Sieve Analysis

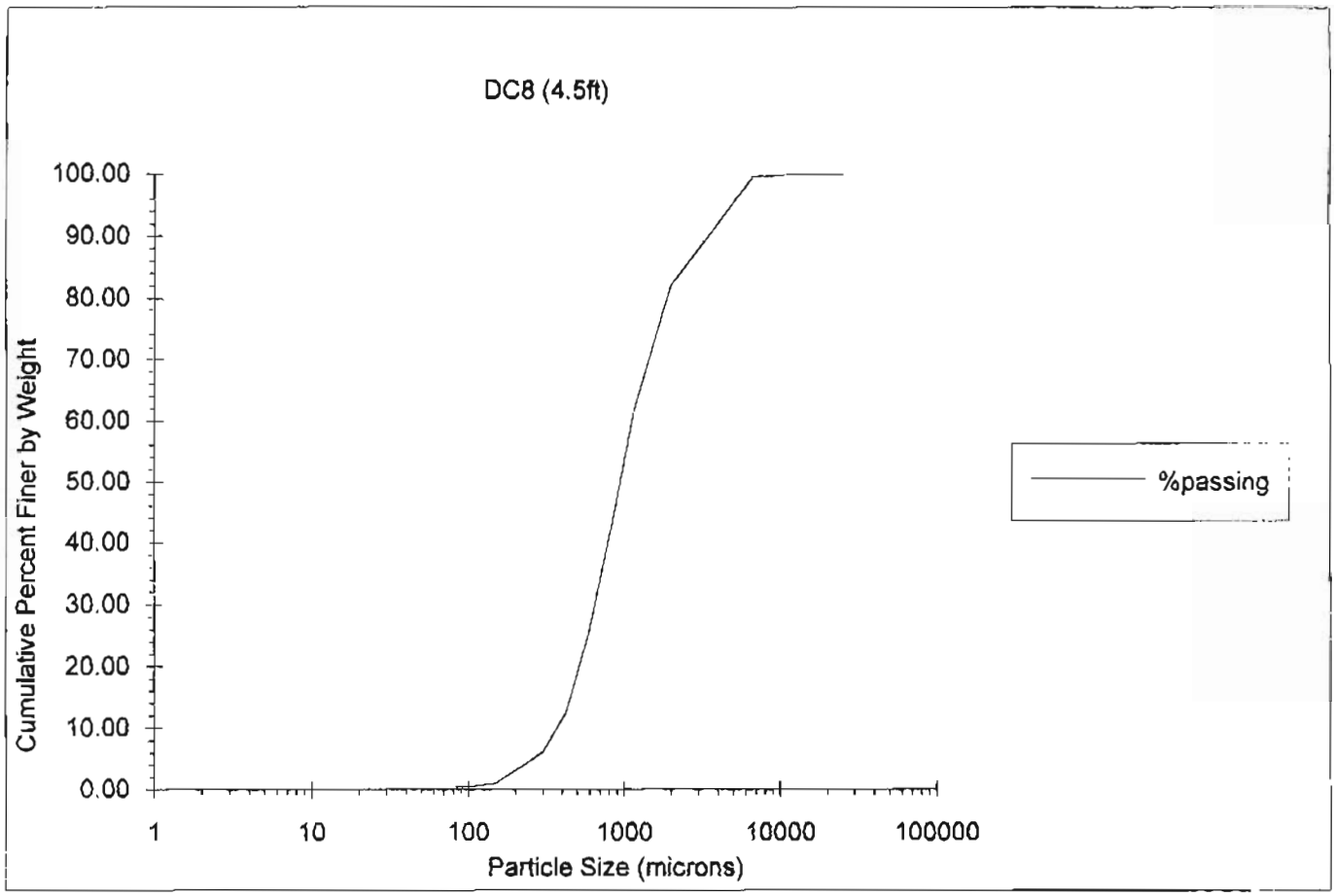
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	38.8	38.8	4.08	95.92
12500	63.9	102.7	10.81	89.19
6700	295.2	397.9	41.87	58.13
2000	324.5	722.4	76.02	23.98
1180	72.7	795.1	83.67	16.33
850	40.5	835.6	87.93	12.07
600	35.9	871.5	91.71	8.29
425	29.3	900.8	94.79	5.21
300	15.9	916.7	96.46	3.54
150	13.3	930	97.86	2.14
106	3.7	933.7	98.25	1.75
75	3.4	937.1	98.61	1.39
pan	13.2	950.3	100.00	0.00



Sample	DC8	Initial Sample Mass (g)	1086.9
Depth	4.5 ft	Final Sample Mass (g)	1086.1

Sieve Analysis

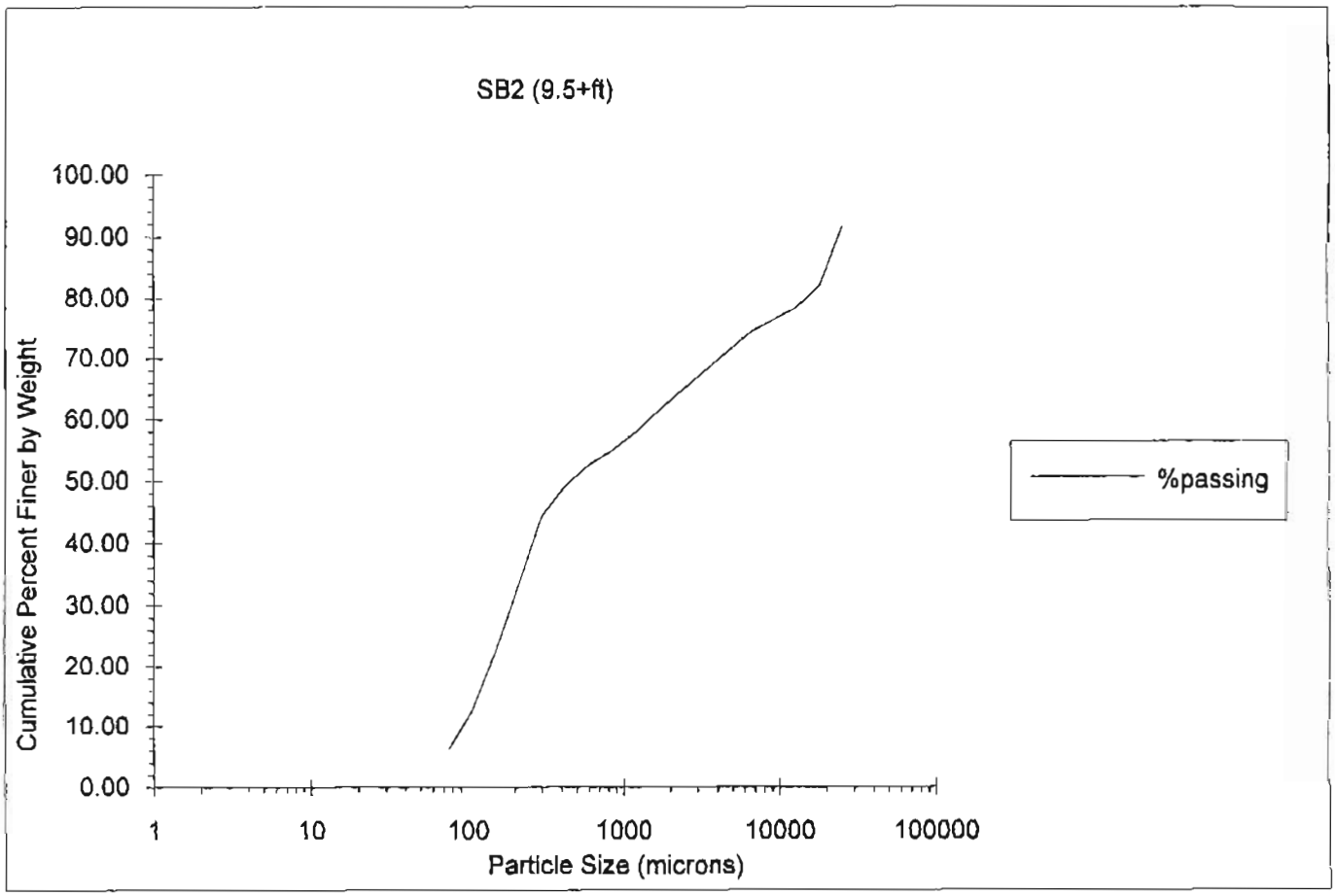
mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	0	0	0.00	100.00
12500	0	0	0.00	100.00
6700	4.7	4.7	0.43	99.57
2000	189.9	194.6	17.92	82.08
1180	213	407.6	37.53	62.47
850	205	612.6	56.40	43.60
600	189.8	802.4	73.88	26.12
425	145.8	948.2	87.30	12.70
300	71.4	1019.6	93.88	6.12
150	55	1074.6	98.94	1.06
106	5.7	1080.3	99.47	0.53
75	2.1	1082.4	99.66	0.34
pan	3.7	1086.1	100.00	0.00



Sample	SB2 (3 feet East of DC-2)	Initial Sample Mass (g)	456.6
Depth	9.5+ ft	Final Sample Mass (g)	456.2

Sieve Analysis

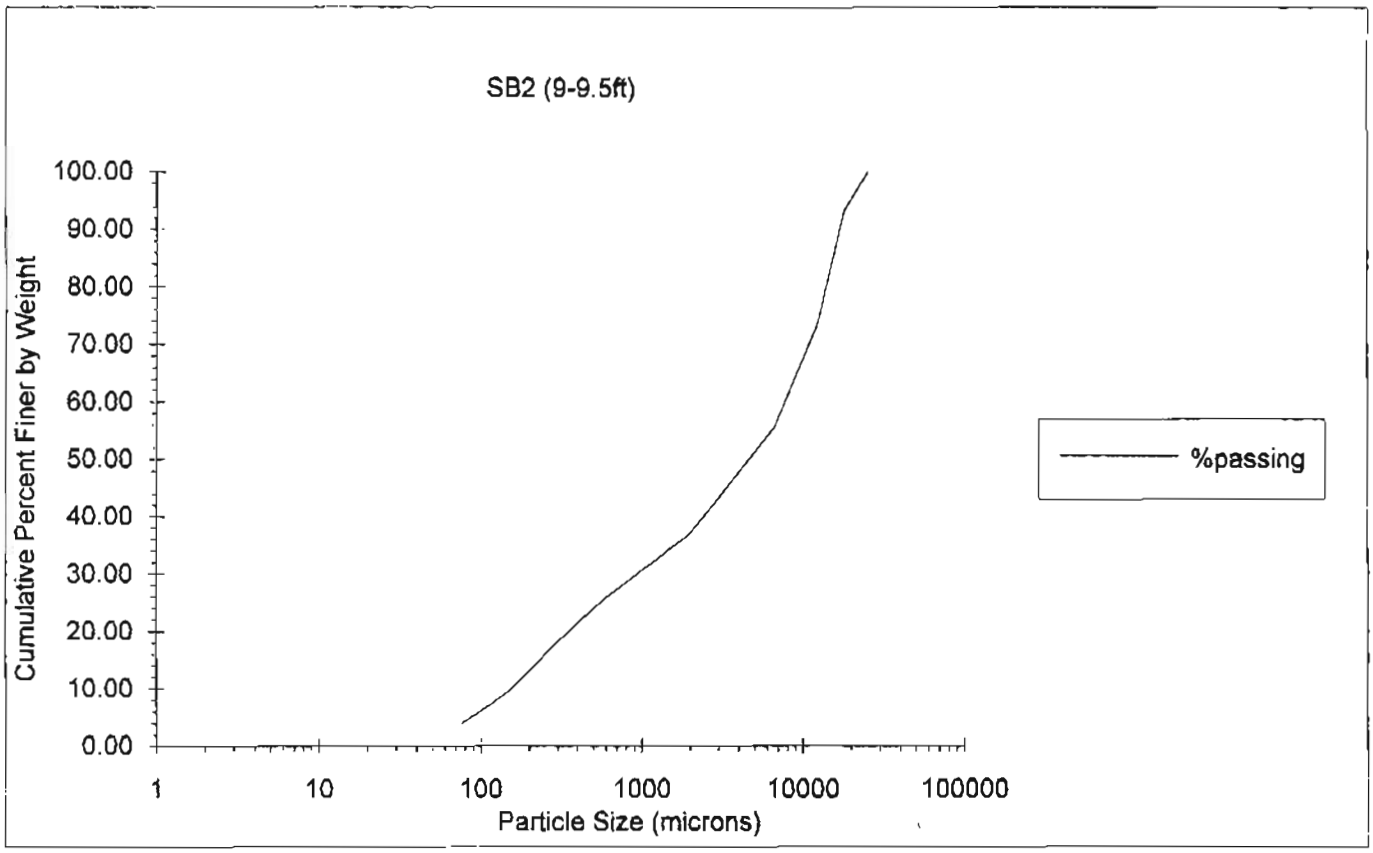
Mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	37.3	37.3	8.18	91.82
18250	44	81.3	17.82	82.18
12500	18	99.3	21.77	78.23
6700	16.8	116.1	25.45	74.55
2000	52.9	169	37.05	62.95
1180	23.9	192.9	42.28	57.72
850	13	205.9	45.13	54.87
600	10.6	216.5	47.46	52.54
425	14.7	231.2	50.68	49.32
300	22.5	253.7	55.61	44.39
150	100.5	354.2	77.64	22.36
106	44.7	398.9	87.44	12.56
75	29.8	428.7	93.97	6.03
pan	27.5	456.2	100.00	0.00



Sample	SB2 (3 feet East of DC-2)	Initial Sample Mass (g) 609.2
Depth	9.0-9.5 ft	Final Sample Mass (g) 608.1

Sieve Analysis

mesh (microns)	retained (g)	accum. (g)	% retained	%passing
25500	0	0	0.00	100.00
18250	39.8	39.8	6.54	93.46
12500	120.3	160.1	26.33	73.67
6700	110.3	270.4	44.47	55.53
2000	112.8	383.2	63.02	36.98
1180	29.8	413	67.92	32.08
850	18.5	431.5	70.96	29.04
600	19.1	450.6	74.10	25.90
425	22.7	473.3	77.83	22.17
300	24.1	497.4	81.80	18.20
150	52	549.4	90.35	9.65
106	18.8	568.2	93.44	6.56
75	15.8	584	96.04	3.96
pan	24.1	608.1	100.00	0.00

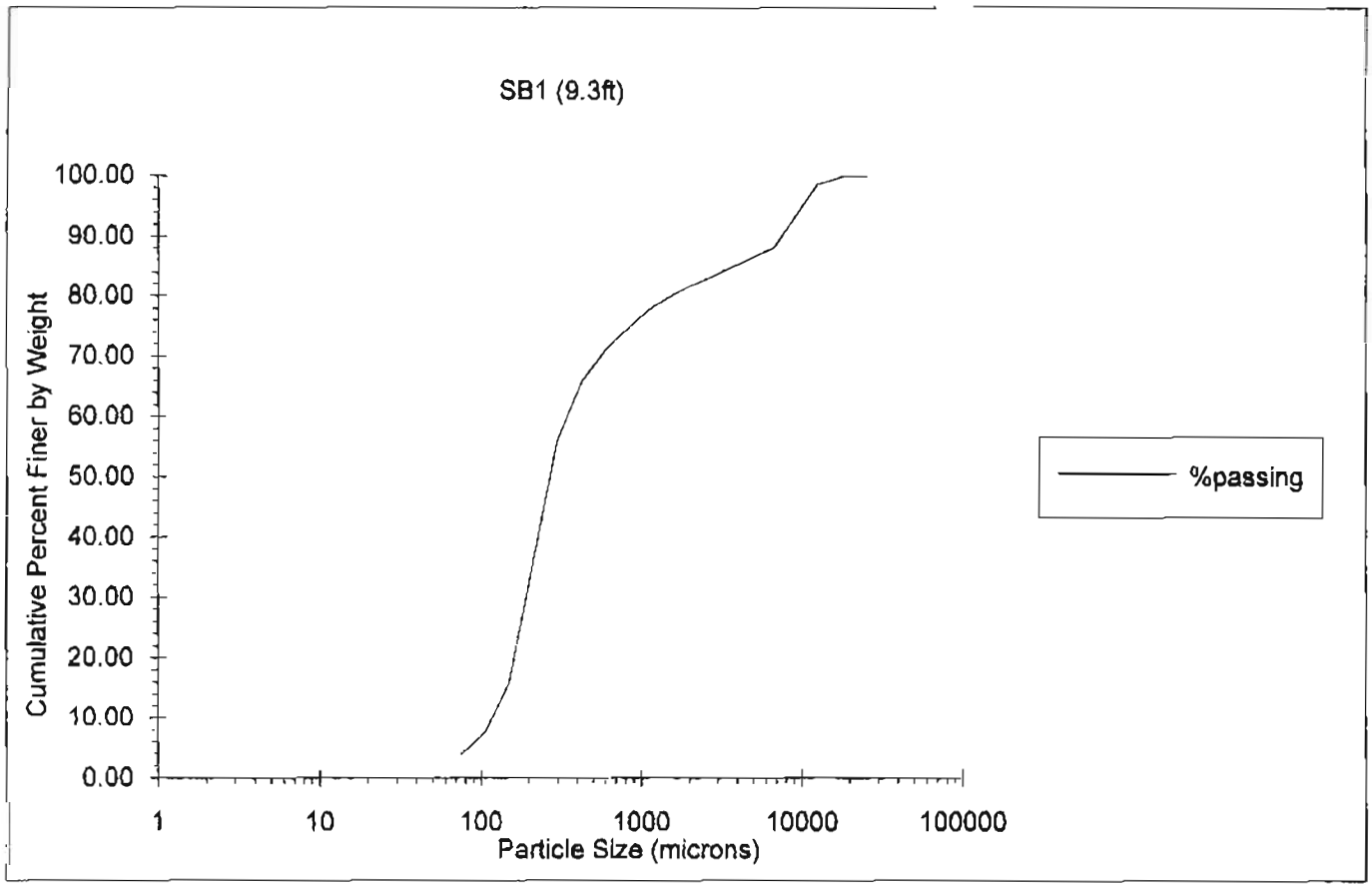


Sample SB1 (DC-11)
Depth 9.3 ft

Initial Sample Mass (g) 343.6
Final Sample Mass (g) 342.6

Sieve Analysis

mesh (microns)	retained (g)	accum. (g)	%retained	%passing
25500	0	0	0.00	100.00
18250	0	0	0.00	100.00
12500	4.7	4.7	1.37	98.63
6700	35.9	40.6	11.85	88.15
2000	22.2	62.8	18.33	81.67
1180	11.6	74.4	21.72	78.28
850	11.2	85.6	24.99	75.01
600	13.2	98.8	28.84	71.16
425	18.1	116.9	34.12	65.88
300	33.2	150.1	43.81	56.19
150	138.4	288.5	84.21	15.79
106	28.3	316.8	92.47	7.53
75	12.6	329.4	96.15	3.85
pan	13.2	342.6	100.00	0.00

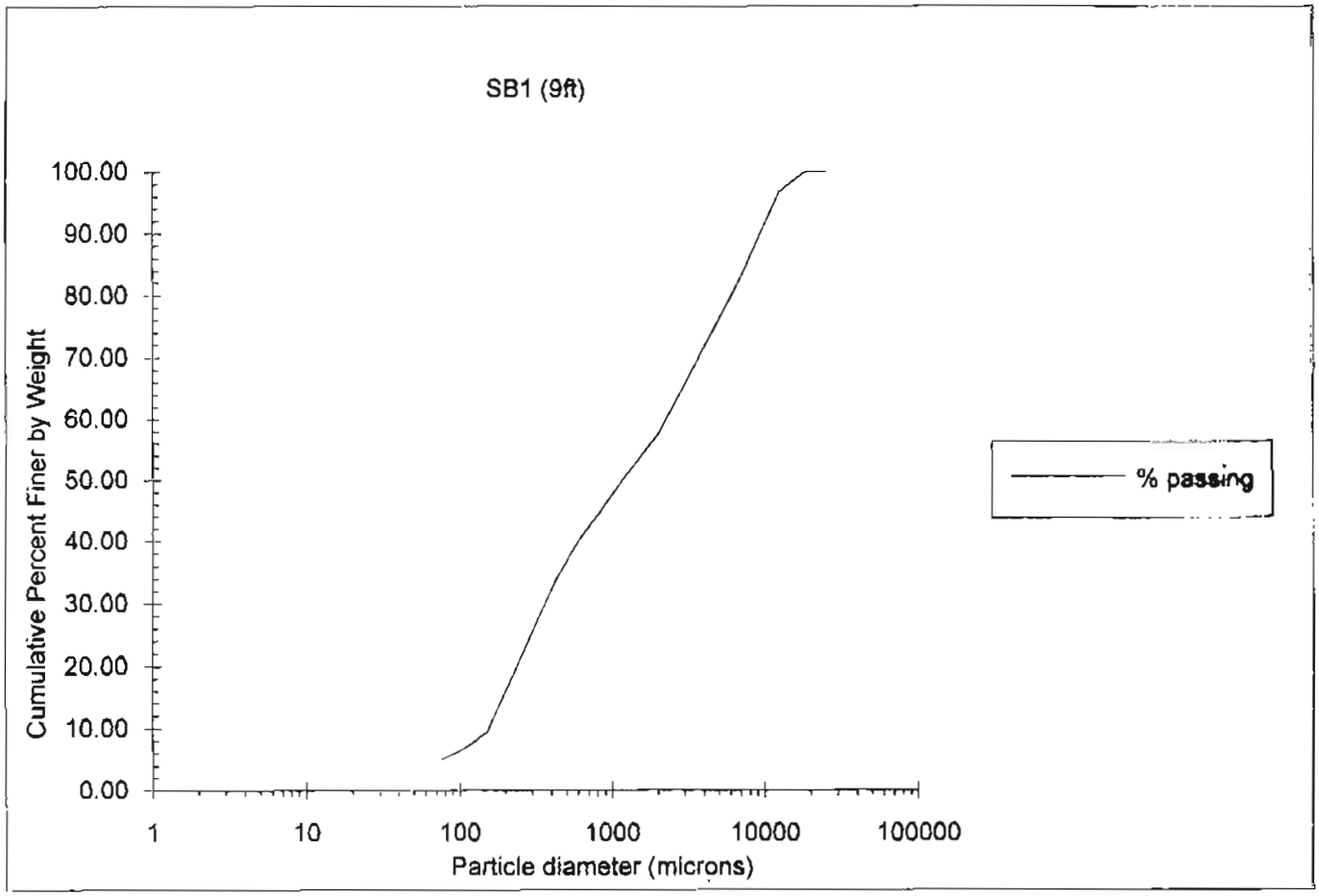


Sample SB1 (DC-11)
Depth 9 ft

Initial Sample Mass (g) 112.3
Final Sample Mass (g) 111.9

Sieve Analysis

mesh (microns)	retained (g)	accum. (g)	% retained	% passing
25500	0	0	0.00	100.00
18250	0	0	0.00	100.00
12500	3.6	3.6	3.22	96.78
6700	16.6	20.2	18.05	81.95
2000	27.5	47.7	42.63	57.37
1180	8.1	55.8	49.87	50.13
850	5.7	61.5	54.96	45.04
600	5.7	67.2	60.05	39.95
425	7	74.2	66.31	33.69
300	9.2	83.4	74.53	25.47
150	18	101.4	90.62	9.38
106	3	104.4	93.30	6.70
75	2	106.4	95.08	4.92
pan	5.5	111.9	100.00	0.00



Appendix B

Duck Creek Chemistry										
			Field Parameters							
Site ID	Date	Time	pH	Cond	Temp	DO	Alkalinity			
			Units	umho/cm	C	mg/l	mg/l			
Lower							CaCO3			
Duck Creek	11-Nov-93	1115	6.96	125	5.6	12.4	62.0			
DC-2	11-Nov-93	1245	6.12	192	6.9	2.3	68.4			
DC-3	11-Nov-93	1310	6.24	174	9.0	2.2	57.3			
DC-4	11-Nov-93	900	6.27	1030	8.2	2.3	72.2			
DC-5	11-Nov-93	1000	6.69	1290	7.0	7.7	62.4			
DC-6	11-Nov-93	1215	6.45	206	7.2	1.8	57.0			
DC-7	11-Nov-93	1030	6.05	1430	7.9	7.3	32.7			
DC-8	11-Nov-93	1015	6.21	5420	7.4	9.2	44.9			
DC-9	11-Nov-93	1100	6.44	3750	9.6	11.6	37.4			
DC-10	11-Nov-93	1330	6.38	138	8.0	2	56.2			
			Laboratory Analysis							
Site ID	Date	Time	Ca	Mg	Na	K	F	Cl	NO3	SO4
Lower			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Duck Creek	11-Nov-93	1115	20.9	1.96	3.07	2.85	0.13	2.95	0.08	5.60
DC-2	11-Nov-93	1245	19.0	3.88	13.5	4.60	0.12	11.7	<0.02	19.1
DC-3	11-Nov-93	1310	17.3	3.47	9.25	4.11	0.11	6.89	<0.02	22.8
DC-4	11-Nov-93	900	5.91	173	228	14.7	0.17	556	<0.02	488
DC-5	11-Nov-93	1000	2.67	83.1	3.16	14.2	0.25	824	<0.02	120
DC-6	11-Nov-93	1215	15.2	7.51	8.21	2.72	0.13	14.2	<0.02	14.6
DC-7	11-Nov-93	1030	10.6	25.1	284	16.3	0.11	347	<0.02	150
DC-8	11-Nov-93	1015	34.9	109	1080	53.2	0.13	1740	<0.02	269
DC-9	11-Nov-93	1100	26.5	78.7	937	48.9	0.13	1100	<0.02	328
DC-10	11-Nov-93	1330	12.9	3.55	5.39	3.64	0.11	2.93	<0.02	1.68
Site ID	Date	Time	Fe	Fe	Mn	Mn				
			Dissolved	Total	Dissolved	Total				
Lower			mg/l	mg/l	mg/l	mg/l				
Duck Creek	11-Nov-93	1115	<DL	1.49	<0.01	<0.01				
DC-2	11-Nov-93	1245	1.90	11.3	<0.01	0.07				
DC-3	11-Nov-93	1310	6.50	7.08	0.35	0.37				
DC-4	11-Nov-93	900	<DL	5.22	<0.01	0.09				
DC-5	11-Nov-93	1000	<DL	10.2	<0.01	0.44				
DC-6	11-Nov-93	1215	9.63	9.64	0.40	<0.01				
DC-7	11-Nov-93	1030	<DL	0.03	<0.01	<0.01				
DC-8	11-Nov-93	1015	<DL	0.37	<0.01	<0.01				
DC-9	11-Nov-93	1100	<DL	0.48	<0.01	<0.01				
DC-10	11-Nov-93	1330	7.00	8.92	0.31	0.34				

Appendix C

DUCK CREEK RELOCATE DATA

11/10/93 745

Well	TOC Elevation	Ground Elevation	Well Depth TOC	Top Screen Elevation	Bottom Screen Elevation	Hold	Cut	Data Pod	DTW	Water Elevation
DC-1	19.79	18.1	13.1	8.69	6.69	5.00	1.56		3.44	16.35
DC-2	26.02	23.8	20.1	7.92	5.92	10.00	0.58		9.42	16.60
DC-3	23.30	20.8	13.0	12.30	10.30	6.00	0.58		5.42	17.88
DC-4	19.47	17.1	13.2	8.27	6.27	4.00	0.53		3.47	16.00
DC-5	19.25	17.1	9.5	11.75	9.75	5.00	1.20		3.80	15.45
DC-6	25.17	22.8	20.2	6.97	4.97	10.00	0.34		9.66	15.51
DC-7	24.10	23.4	16.7	9.40	7.40	12.00	2.26		9.74	14.36
DC-8	18.58	17.0	16.7	3.88	1.88	5.00	1.88		3.12	15.46
DC-9	21.70	20.1	13.2	10.50	8.50	9.00	1.54		7.46	14.24
DC-10	21.23	19.3	12.3	10.93	8.93	5.00	2.49		2.51	18.72
DC-11	23.62	22.4	16.8	8.82	6.82	14.00	2.68		11.32	12.30
C-Well	25.37	25.2	41.0		-15.63	10.00	0.35		9.65	15.72
R-Well	25.43	0.4								
CAP	24.00	0.4								
AERO	25.14	25.4								
U. Culvert	20.86	0.4								
U. Staff	18.10	0.4								
L. Staff	17.04	0.4								
L. Culvert	17.93	0.4								

Note: Well 11 was deepened on 29 November and elevation in table is latest elevation.
All previous water measurements have the cut corrected by 1.25 feet.

Data Pods-Installed 11 Nov. 93; except as noted

Well	Install Time	Initial Reading	Water Elevation
2	1515	9.10	16.61
4	1455	9.63	15.96
7	1503	7.51	14.48
10	1530	9.88	18.56
C-Well	710	7.06	15.72
R-Well	820	5.97	16.88

All data pod and water elevation changes referenced to initial readings.

Installed 12 Nov.

	11/12/93	High Tide	1200					11/12/93	Low Tide	1600		
Well					Water		Well					Water
	Hold	Cut	Data Pod	DTW	Elevation			Hold	Cut	Data Pod	DTW	Elevation
DC-1	3.00	0.18		2.82	16.97		DC-1	4.00	0.49		3.51	16.26
DC-2	10.00	0.70	9.25	9.30	16.72		DC-2	10.00	0.56	9.09	9.44	16.58
DC-3	6.00	0.38		5.62	17.68		DC-3	6.00	0.20		5.80	17.50
DC-4	3.00	0.77	10.89	2.23	17.24		DC-4	4.00	0.66	9.81	3.34	16.13
DC-5	3.00	0.49		2.51	16.74		DC-5	4.00	0.79		3.21	16.04
DC-6	10.00	0.56		9.44	15.73		DC-6	10.00	0.69		9.31	15.86
DC-7	10.00	0.53	7.67	9.47	14.63		DC-7	10.00	0.66	7.80	9.34	14.76
DC-8	3.00	1.03		1.97	16.61		DC-8	3.00	0.41		2.59	15.99
DC-9	7.00	0.19		6.81	14.89		DC-9	8.00	1.01		6.99	14.71
DC-10	3.00	0.06	9.64	2.94	18.29		DC-10	4.00	0.99	9.55	3.01	18.22
DC-11	13.00	2.09		10.91	12.71		DC-11	13.00	2.15		10.85	12.77
C-Well					16.09		C-Well					16.10
R-Well	10.00	1.66	6.20	8.34	17.09		R-Well					16.95
CAP	9.15	1.56		7.59	16.41		CAP	9.00	0.77		8.23	15.77
AERO	9.00	0.82		8.18	16.96		AERO	9.00	0.91		8.09	17.05
UC	3.00	0.12		2.88	17.98		UC	3.10	0.09		3.01	17.85
US	1.60	0.70		0.90	17.20		US	2.00	0.26		1.74	16.36
LS	1.03	0.21		0.82	16.22		LS	2.10	0.91		1.19	15.85
LC							LC	4.00	0.15		3.85	14.08

	11/12/93	High Tide		Change			11/12/93	Low Tide		Change	
		Water	Change	Water	Difference			Water	Change	Water	Difference
Well	dp	Elevation	dp	Elevation	dp - W. E.	Well	dp	Elevation	dp	Elevation	dp - W. E.
2	9.25	16.72	0.15	0.11	0.04	2	9.09	16.58	-0.01	-0.03	0.02
4	10.89	17.24	1.26	1.28	-0.02	4	9.81	16.13	0.18	0.17	0.01
7	7.67	14.63	0.16	0.15	0.01	7	7.80	14.76	0.29	0.28	0.01
10	9.64	18.29	-0.24	-0.27	0.03	10	9.55	18.22	-0.33	-0.34	0.01
C-Well						C-Well					
R-Well	6.20	17.09	0.23	0.21	0.02	R-Well					

	12/1/93	1000	Hold-Cut by Miller Students					12/8/93	1035			
Well		DC-6 Cut could be 1.00			Water	Well	TOC			Data		Water
	Hold	Cut	Data Pod	DTW	Elevation		Elevation	Hold	Cut	Pod	DTW	Elevation
DC-1	5.00	0.91		4.09	15.70	DC-1	19.79	5.00	0.66		4.34	15.45
DC-2	11.00	0.97	8.50	10.03	15.99	DC-2	26.02	11.00	0.69	8.22	10.31	15.71
DC-3	7.00	0.55		6.45	16.85	DC-3	23.30	8.00	1.33		6.67	16.63
DC-4	5.00	0.91	9.04	4.09	15.38	DC-4	19.47	5.00	0.65	8.75	4.35	15.12
DC-5	5.00	0.77		4.23	15.02	DC-5	19.25	5.00	0.41		4.59	14.66
DC-6	11.00	0.01		10.99	14.18	DC-6	25.17	11.00	0.63		10.37	14.80
DC-7	11.00	1.09	7.21	9.91	14.19	DC-7	24.10	11.00	0.64	6.79	10.36	13.74
DC-8	6.00	2.42		3.58	15.00	DC-8	18.58	4.00	0.07		3.93	14.65
DC-9	8.00	0.26		7.74	13.96	DC-9	21.70	9.00	0.92		8.08	13.62
DC-10	5.00	1.17	8.76	3.83	17.40	DC-10	21.23	4.20	0.17	8.59	4.03	17.20
DC-11	13.00	1.71		11.29	12.33	DC-11	23.62	12.00	0.28		11.72	11.90
							0.35					
C-Well					15.44	C-Well	25.37					14.92
R-Well					16.46	R-Well	25.43					16.24
CAP	9.17	0.34		8.83	15.17	CAP	24.00	10.00	0.85		9.15	14.85
AERO	9.00	0.60		8.40	16.74	AERO	25.14	9.00	0.38		8.62	16.52
							"0" Elev.		Staff G.	Flow (cfs)		
UC	4.00	0.24		3.76	17.10	UC	9.75		7.58	3.09		17.33
US	2.28	0.00		2.28	15.82	US	14.87		0.82	3.65		15.69
LS	1.57	0.00		1.57	15.47	LS	13.93		1.44	3.36		15.37
LC						LC	9.90		3.82	3.27		13.72

	12/1/93		(C)	Change			12/8/93			Change		
		Water	Change	Water	Difference			Water	Change	Water	Difference	
Well	dp	Elevation	dp	Elevation	dp - W. E.	Well	dp	Elevation	dp	Elevation	dp - W. E.	
2	8.50	15.99	-0.60	-0.62	0.02	2	8.22	15.71	-0.88	-0.90	0.02	
4	9.04	15.38	-0.59	-0.58	-0.01	4	8.75	15.12	-0.88	-0.84	-0.04	
7	7.21	14.19	-0.30	-0.29	-0.01	7	6.79	13.74	-0.72	-0.74	0.02	
10	8.76	17.40	-1.12	-1.16	0.04	10	8.59	17.20	-1.29	-1.36	0.07	
C-Well						C-Well						
R-Well						R-Well						

									New Chips in Data Pods Initial Readings					
		12/20/93	800						12/20/93	800				
Well	TOC			Data		Water	Well	TOC			Data		Water	
	Elevation	Hold	Cut	Pod	DTW	Elevation		Elevation	Hold	Cut	Pod	DTW	Elevation	
DC-1	19.79						DC-1	19.79						
DC-2	26.02	11.00	0.98	8.52	10.02	16.00	DC-2	26.02	11.00	0.98	8.52	10.02	16.00	
DC-3	23.30						DC-3	23.30						
DC-4	19.47	5.00	0.99	9.08	4.01	15.46	DC-4	19.47	5.00	0.97	9.07	4.03	15.44	
DC-5	19.25						DC-5	19.25						
DC-6	25.17						DC-6	25.17						
DC-7	24.10	11.00	0.96	7.09	10.04	14.06	DC-7	24.10	11.00	0.96	7.09	10.04	14.06	
DC-8	18.58						DC-8	18.58						
DC-9	21.70						DC-9	21.70						
DC-10	21.23	5.00	1.24	8.86	3.76	17.47	DC-10	21.23	4.00	0.24	8.86	3.76	17.47	
DC-11	23.62						DC-11	23.62						
	0.35						Note: C-well PT not secured, secured & remeasured @ 1050							
C-Well	25.37	12.00	1.91	9.19	10.09	15.28	C-Well	25.37	11.00	0.89	8.73	10.11	15.26	
R-Well	25.43	10.00	1.07	5.61	8.93	16.50	R-Well	25.43	10.00	1.07	5.60	8.93	16.50	
CAP	24.00						CAP	24.00						
AERO	25.14						AERO	25.14						
	"0" Elev.		Staff G.	Flow (cfs)				"0" Elev.		Staff G.	Flow (cfs)			
UC	9.75						1	9.75						
US	14.87						2	14.87						
LS	13.93						3	13.93						
LC	9.90						4	9.90						
	12/20/93			Change				12/20/93			Change			
		Water	Change	Water	Difference				Water	Change	Water	Difference		
Well	dp	Elevation	dp	Elevation	dp - W. E.		Well	dp	Elevation	dp	Elevation	dp - W. E.		
2	8.52	16.00	-0.58	-0.61	0.03		2	8.52	16.00	0.00	0.00	0.00		
4	9.08	15.46	-0.55	-0.50	-0.05		4	9.07	15.44	0.00	0.00	0.00		
7	7.09	14.06	-0.42	-0.42	0.00		7	7.09	14.06	0.00	0.00	0.00		
10	8.86	17.47	-1.02	-1.09	0.07		10	8.86	17.47	0.00	0.00	0.00		
C-Well	9.19	15.28	2.13	-0.44	2.57	***	C-Well	8.73	15.26	0.00	0.00	0.00		
R-Well	5.61	16.50	-0.36	-0.38	0.02		R-Well	5.60	16.50	0.00	0.00	0.00		
***Pressure transducer moved by homeowner 2.5 feet, data pod records corrected by 2.5 feet														

		1/12/94	855							1/25/94	1015			
Well	TOC			Data		Water	Well	TOC			Data		Water	
	Elevation	Hold	Cut	Pod	DTW	Elevation		Elevation	Hold	Cut	Pod	DTW	Elevation	
DC-1	19.79	6.00	1.12		4.88	14.91	DC-1	19.79	7.00	1.34		5.66	14.13	
DC-2	26.02	12.00	1.03	7.55	10.97	15.05	DC-2	26.02	13.00	1.25	6.75	11.75	14.27	
DC-3	23.30	8.00	0.65		7.35	15.95	DC-3	23.30	9.00	1.09		7.91	15.39	
DC-4	19.47	6.00	1.16	8.26	4.84	14.63	DC-4	19.47	7.00	1.23	7.35	5.77	13.70	
DC-5	19.25	6.00	0.95		5.05	14.20	DC-5	19.25	7.00	0.93		6.07	13.18	
DC-6	25.17	12.00	1.08		10.92	14.25	DC-6	25.17	13.00	1.16		11.84	13.33	
DC-7	24.10	12.00	1.32	6.46	10.68	13.42	DC-7	24.10	13.00	1.22	5.37	11.78	12.32	
DC-8	18.58	6.00	1.62		4.38	14.20	DC-8	18.58	6.00	0.66		5.34	13.24	
DC-9	21.70	9.00	0.64		8.36	13.34	DC-9	21.70	10.00	0.47		9.53	12.17	
DC-10	21.23	6.00	1.27	7.87	4.73	16.50	DC-10	21.23	6.00	0.76	7.39	5.24	15.99	
DC-11	23.62	13.00	1.08		11.92	11.70	DC-11	23.62	14.00	1.00		13.00	10.62	
C-Well	25.37						C-Well	25.37	13.00	0.80	6.33	12.20	13.17	
R-Well	25.43						R-Well	25.43	11.00	0.49	4.04	10.51	14.92	
CAP	24.00	12.00	2.41		9.59	14.41	CAP	24.00	12.00	1.41		10.59	13.41	
AERO	25.14						AERO	25.14	9.50	DRY				
	"0" Elev.		Staff G.	Flow (cfs)				"0" Elev.		Staff G.	Flow (cfs)			
SG 1	9.75		7.02			16.77	SG 1	9.75					DRY	
SG 2	14.87		0.19	0.23		15.06	SG 2	14.87					DRY	
SG 3	13.93	This SG was pulled out by someone					SG 3	13.93					Frozen	
SG 4	9.90		3.39	0.10		13.29	SG 4	9.90					DRY	
	12/20/93			Change							Change			
		Water	Change	Water	Difference				Water	Change	Water	Difference		
Well	dp	Elevation	dp	Elevation	dp - W. E.		Well	dp	Elevation	dp	Elevation	dp - W. E.		
2	7.55	15.05	-0.97	-0.95	-0.02		2	6.75	14.27	-1.77	-1.73	-0.04		
4	8.26	14.63	-0.81	-0.81	0.00		4	7.35	13.70	-1.72	-1.74	0.02		
7	6.46	13.42	-0.63	-0.64	0.01		7	5.37	12.32	-1.72	-1.74	0.02		
10	7.87	16.50	-0.99	-0.97	-0.02		10	7.39	15.99	-1.47	-1.48	0.01		
C-Well							C-Well	6.33	13.17	-2.40	-2.09	-0.31		
R-Well							R-Well	4.04	14.92	-1.56	-1.58	0.02		

	Recheck C-well because of possible dp drift						
		1/26/94	1700				
Well	TOC			Data		Water	
	Elevation	Hold	Cut	Pod	DTW	Elevation	
DC-1							
DC-2							
DC-3							
DC-4							
DC-5							
DC-6							
DC-7							
DC-8							
DC-9							
DC-10							
DC-11							
C-Well	25.37	13.00	1.21	6.59	11.79	13.58	
R-Well							
CAP							
AERO							
	"0" Elev.		Staff G.	Flow (cfs)			
SG 1	9.75						
SG 2	14.87						
SG 3	13.93						
SG 4	9.90						
				Change			
		Water	Change	Water	Difference		
Well	dp	Elevation	dp	Elevation	dp - W. E.		
2							
4							
7							
10							
C-Well	6.59	13.58	-2.14	-1.68	-0.46		
R-Well							

	Recheck C-well because of possible dp drift					
	Steel tape may have caught on well coupling					
		1/31/94	1700			
Well	TOC			Data		Water
	Elevation	Hold	Cut	Pod	DTW	Elevation
DC-1						
DC-2						
DC-3						
DC-4						
DC-5						
DC-6						
DC-7						
DC-8						
DC-9						
DC-10						
DC-11						
C-Well	25.37	11.00	0.90	8.72	10.10	15.27
R-Well						
CAP						
AERO						
	"0" Elev.		Staff G.	Flow (cfs)		
SG 1	9.75					
SG 2	14.87					
SG 3	13.93					
SG 4	9.90					
	8.73	15.26	C-well start dp and water elevation			
				Change		
		Water	Change	Water	Difference	
Well	dp	Elevation	dp	Elevation	dp - W. E.	
2						
4						
7						
10						
C-Well	8.72	15.27	-0.01	0.01	-0.02	
R-Well						

		3/14/94	840						6/15/94	1300				
Well	TOC Elevation	Hold	Cut	Data Pod	DTW	Water Elevation		Well	TOC Elevation	Hold	Cut	Data Pod	DTW	Water Elevation
DC-1	19.79	5.00	1.17		3.83	15.96		DC-1	19.79	6.00	0.77		5.23	14.56
DC-2	26.02	11.00	1.24	8.76	9.76	16.26		DC-2	26.02	15.00	3.78		11.22	14.80
DC-3	23.30	7.00	0.92		6.08	17.22		DC-3	23.30	10.00	2.37		7.63	15.67
DC-4	19.47	5.00	1.17	9.34	3.83	15.64		DC-4	19.47	6.00	0.75		5.25	14.22
DC-5	19.25	4.50	0.52		3.98	15.27		DC-5	19.25	7.00	1.63		5.37	13.88
DC-6	25.17	11.00	1.28		9.72	15.45		DC-6	25.17	12.00	0.92		11.08	14.09
DC-7	24.10	11.00	1.32	7.48	9.68	14.42		DC-7	24.10	12.00	1.18		10.82	13.28
DC-8	18.58	5.00	1.73		3.27	15.31		DC-8	18.58	5.00	0.33		4.67	13.91
DC-9	21.70	8.00	0.63		7.37	14.33		DC-9	21.70	10.00	1.30		8.70	13.00
DC-10	21.23	4.00	0.55	9.17	3.45	17.78		DC-10	21.23	6.00	0.96		5.04	16.19
DC-11	23.62	12.00	0.89		11.11	12.51		DC-11	23.62	13.00	1.06		11.94	11.68
C-Well	25.37	11.00	1.25	9.19	9.75	15.62		C-Well	25.37					
R-Well	25.43	10.00	1.24	5.82	8.76	16.67		R-Well	25.43					
CAP	24.00	10.00	1.36		8.64	15.36		CAP	24.00	11.00	0.92		10.08	13.92
AERO	25.14	9.00	0.77		8.23	16.91		AERO	25.14	9.00	dry			
	"0" Elev.		Staff G.	Flow (cfs)					"0" Elev.		Staff G.	Flow (cfs)		
SG 1	9.75		8.00	9.86		17.75		SG 1	water, no flow					
SG 2	14.87		1.35	11.50		16.22		SG 2	water, no flow					14.88
SG 3	This SG was pulled out			N/M				SG 3	water, no flow					
SG 4	9.90		4.26	11.20		14.16		SG 4	Dry					

R-well was measured on 16 March at 1132

N/M=no measurement due to obstruction in cross-section

Well	dp	Water Elevation	Change dp	Change Water Elevation	Difference dp - W. E.
2	8.76	16.26	0.24	0.26	-0.02
4	9.34	15.64	0.27	0.20	0.07
7	7.48	14.42	0.39	0.36	0.03
10	9.17	17.78	0.31	0.31	0.00
C-Well	9.19	15.62	0.46	0.36	0.10
R-Well	5.82	16.67	0.22	0.17	0.05

Appendix D

C-Well
elevation (feet)
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
5-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
5-Mar-94
12-Mar-94
19-Mar-94
Data missing because newly installed data pod malfunctioned

C-Well			C-Well			C-Well			C-Well		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
11-Nov-93	10:30	15.80	19-Nov-93	10:30	16.52	1-Dec-93	7:30	15.43	15-Dec-93	21:30	15.25
11-Nov-93	13:30	15.87	19-Nov-93	12:30	16.59	1-Dec-93	11:30	15.39	16-Dec-93	3:30	15.27
11-Nov-93	16:30	15.93	19-Nov-93	15:30	16.67	1-Dec-93	16:30	15.41	16-Dec-93	11:30	15.36
11-Nov-93	17:30	15.93	19-Nov-93	19:30	16.75	1-Dec-93	21:30	15.41	16-Dec-93	16:30	15.43
11-Nov-93	18:30	16.08	19-Nov-93	21:30	16.78	2-Dec-93	1:30	15.36	16-Dec-93	21:30	15.50
11-Nov-93	21:30	16.10	20-Nov-93	2:30	16.77	2-Dec-93	14:30	15.37	17-Dec-93	5:30	15.58
12-Nov-93	7:30	16.08	20-Nov-93	6:30	16.69	2-Dec-93	18:30	15.46	17-Dec-93	11:30	15.67
12-Nov-93	11:30	16.06	20-Nov-93	11:30	16.60	2-Dec-93	21:30	15.51	17-Dec-93	18:30	15.76
12-Nov-93	13:30	16.10	20-Nov-93	14:30	16.52	3-Dec-93	6:30	15.60	17-Dec-93	21:30	15.78
12-Nov-93	15:30	16.07	20-Nov-93	18:30	16.44	3-Dec-93	20:30	15.65	18-Dec-93	9:30	15.76
12-Nov-93	21:30	16.05	20-Nov-93	21:30	16.37	3-Dec-93	21:30	15.65	18-Dec-93	16:30	15.67
13-Nov-93	6:30	16.00	21-Nov-93	0:30	16.30	4-Dec-93	7:30	15.58	18-Dec-93	21:30	15.63
13-Nov-93	10:30	15.96	21-Nov-93	3:30	16.22	4-Dec-93	11:30	15.53	19-Dec-93	4:30	15.55
13-Nov-93	12:30	16.02	21-Nov-93	7:30	16.13	4-Dec-93	17:30	15.48	19-Dec-93	14:30	15.46
13-Nov-93	13:30	16.07	21-Nov-93	11:30	16.04	4-Dec-93	21:30	15.44	19-Dec-93	20:30	15.41
13-Nov-93	15:30	16.16	21-Nov-93	15:30	15.95	5-Dec-93	5:30	15.35	19-Dec-93	21:30	15.39
13-Nov-93	16:30	16.23	21-Nov-93	19:30	15.86	5-Dec-93	17:30	15.26	20-Dec-93	9:33	15.30
13-Nov-93	17:30	16.31	21-Nov-93	21:30	15.82	5-Dec-93	21:30	15.23	20-Dec-93	12:33	15.28
13-Nov-93	18:30	16.40	22-Nov-93	0:30	15.75	6-Dec-93	6:30	15.15	20-Dec-93	13:33	15.25
13-Nov-93	19:30	16.48	22-Nov-93	3:30	15.68	6-Dec-93	12:30	15.13	20-Dec-93	21:33	15.26
13-Nov-93	20:30	16.56	22-Nov-93	7:30	15.59	6-Dec-93	19:30	15.09	21-Dec-93	4:33	15.17
13-Nov-93	21:30	16.65	22-Nov-93	11:30	15.51	6-Dec-93	21:30	15.08	21-Dec-93	9:33	15.08
13-Nov-93	22:30	16.73	22-Nov-93	16:30	15.43	7-Dec-93	3:30	15.04	21-Dec-93	17:33	15.05
13-Nov-93	23:30	16.80	22-Nov-93	20:30	15.35	7-Dec-93	8:30	15.01	22-Dec-93	3:33	15.02
14-Nov-93	0:30	16.86	22-Nov-93	21:30	15.33	7-Dec-93	15:30	14.99	22-Dec-93	9:33	14.96
14-Nov-93	1:30	16.92	23-Nov-93	2:30	15.24	7-Dec-93	21:30	14.95	22-Dec-93	18:33	14.94
14-Nov-93	3:30	17.01	23-Nov-93	8:30	15.15	8-Dec-93	2:30	14.92	23-Dec-93	3:33	14.91
14-Nov-93	5:30	17.09	23-Nov-93	16:30	15.06	8-Dec-93	7:30	14.89	23-Dec-93	9:33	14.93
14-Nov-93	9:30	17.17	23-Nov-93	21:30	15.00	8-Dec-93	18:30	14.87	23-Dec-93	15:33	15.01
14-Nov-93	12:30	17.24	24-Nov-93	3:30	14.96	8-Dec-93	21:30	14.86	24-Dec-93	4:33	15.09
14-Nov-93	13:30	17.29	24-Nov-93	10:30	14.98	9-Dec-93	4:30	14.82	24-Dec-93	9:33	15.07
14-Nov-93	14:30	17.34	24-Nov-93	14:30	15.03	9-Dec-93	12:30	14.83	24-Dec-93	18:33	15.05
14-Nov-93	16:30	17.43	24-Nov-93	21:30	15.02	9-Dec-93	16:30	14.86	24-Dec-93	23:33	15.11
14-Nov-93	19:30	17.49	25-Nov-93	8:30	15.04	9-Dec-93	21:30	14.81	25-Dec-93	6:33	15.15
14-Nov-93	21:30	17.48	25-Nov-93	11:30	15.13	10-Dec-93	6:30	14.79	25-Dec-93	9:33	15.21
15-Nov-93	2:30	17.39	25-Nov-93	13:30	15.21	10-Dec-93	9:30	14.79	25-Dec-93	17:33	15.23
15-Nov-93	7:30	17.31	25-Nov-93	14:30	15.26	10-Dec-93	12:30	14.87	26-Dec-93	4:33	15.30
15-Nov-93	10:30	17.22	25-Nov-93	15:30	15.31	10-Dec-93	16:30	14.96	26-Dec-93	9:33	15.28
15-Nov-93	12:30	17.18	25-Nov-93	16:30	15.36	10-Dec-93	21:30	14.95	26-Dec-93	16:33	15.22
15-Nov-93	16:30	17.27	25-Nov-93	17:30	15.42	11-Dec-93	6:30	14.93	27-Dec-93	2:33	15.25
15-Nov-93	19:30	17.26	25-Nov-93	18:30	15.49	11-Dec-93	11:30	14.93	27-Dec-93	9:33	15.16
15-Nov-93	21:30	17.20	25-Nov-93	19:30	15.54	11-Dec-93	15:30	15.02	27-Dec-93	22:33	15.10
16-Nov-93	0:30	17.11	25-Nov-93	20:30	15.60	11-Dec-93	19:30	15.06	28-Dec-93	7:33	15.08
16-Nov-93	3:30	17.03	25-Nov-93	21:30	15.65	11-Dec-93	21:30	15.05	28-Dec-93	9:33	15.05
16-Nov-93	7:30	16.95	25-Nov-93	23:30	15.73	12-Dec-93	7:30	15.00	28-Dec-93	13:33	15.04
16-Nov-93	10:30	16.87	26-Nov-93	1:30	15.80	12-Dec-93	11:30	14.99	28-Dec-93	18:33	15.06
16-Nov-93	14:30	16.79	26-Nov-93	4:30	15.88	12-Dec-93	14:30	15.08	29-Dec-93	2:33	15.12
16-Nov-93	19:30	16.78	26-Nov-93	9:30	15.97	12-Dec-93	19:30	15.17	29-Dec-93	9:33	15.05
16-Nov-93	21:30	16.72	26-Nov-93	16:30	16.06	12-Dec-93	21:30	15.17	29-Dec-93	13:33	15.03
17-Nov-93	0:30	16.65	26-Nov-93	21:30	16.05	13-Dec-93	7:30	15.16	29-Dec-93	19:33	15.05
17-Nov-93	4:30	16.56	27-Nov-93	6:30	15.96	13-Dec-93	11:30	15.11	30-Dec-93	9:33	15.12
17-Nov-93	8:30	16.48	27-Nov-93	10:30	15.90	13-Dec-93	14:30	15.18	30-Dec-93	14:33	15.09
17-Nov-93	12:30	16.39	27-Nov-93	19:30	15.88	13-Dec-93	18:30	15.26	30-Dec-93	19:33	15.10
17-Nov-93	16:30	16.32	27-Nov-93	21:30	15.85	13-Dec-93	21:30	15.28	31-Dec-93	9:33	15.18
17-Nov-93	21:30	16.25	28-Nov-93	5:30	15.79	14-Dec-93	3:30	15.24	31-Dec-93	15:33	15.16
18-Nov-93	2:30	16.16	28-Nov-93	11:30	15.73	14-Dec-93	7:30	15.22	31-Dec-93	20:33	15.18
18-Nov-93	8:30	16.08	28-Nov-93	21:30	15.71	14-Dec-93	12:30	15.15	1-Jan-94	3:33	15.23
18-Nov-93	14:30	15.99	29-Nov-93	9:30	15.62	14-Dec-93	16:30	15.23	1-Jan-94	9:33	15.18
18-Nov-93	18:30	16.00	29-Nov-93	20:30	15.60	14-Dec-93	19:30	15.27	1-Jan-94	13:33	15.18

C-Well			C-Well			C-Well			C-Well		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
18-Nov-93	21:30	16.06	29-Nov-93	21:30	15.58	14-Dec-93	21:30	15.27	1-Jan-94	23:33	15.13
19-Nov-93	0:30	16.13	30-Nov-93	5:30	15.52	15-Dec-93	3:30	15.19	2-Jan-94	3:33	15.11
19-Nov-93	3:30	16.22	30-Nov-93	13:30	15.47	15-Dec-93	8:30	15.16	2-Jan-94	9:33	15.07
19-Nov-93	5:30	16.31	30-Nov-93	18:30	15.51	15-Dec-93	12:30	15.11	2-Jan-94	15:33	15.07
19-Nov-93	6:30	16.38	30-Nov-93	21:30	15.49	15-Dec-93	15:30	15.14	2-Jan-94	21:33	15.02
19-Nov-93	8:30	16.45	1-Dec-93	1:30	15.44	15-Dec-93	19:30	15.23	3-Jan-94	5:33	15.00
3-Jan-94	9:33	14.93	24-Jan-94	9:33	12.89	17-Feb-94	1:27	13.47	8-Mar-94	16:27	13.54
3-Jan-94	23:33	14.91	24-Jan-94	17:33	12.86	17-Feb-94	10:27	13.45	8-Mar-94	22:27	13.63
4-Jan-94	6:33	14.82	24-Jan-94	23:33	12.90	17-Feb-94	16:27	13.40	9-Mar-94	3:27	13.72
4-Jan-94	9:33	14.76	25-Jan-94	9:33	13.17	18-Feb-94	1:27	13.31	9-Mar-94	9:27	13.77
4-Jan-94	17:33	14.75	25-Jan-94	19:33	13.15	18-Feb-94	9:27	13.24	9-Mar-94	15:27	13.86
5-Jan-94	2:33	14.69	26-Jan-94	0:33	13.24	18-Feb-94	15:27	13.19	9-Mar-94	16:27	13.94
5-Jan-94	9:33	14.60	26-Jan-94	7:33	13.26	18-Feb-94	16:27	13.10	9-Mar-94	21:27	14.02
5-Jan-94	14:33	14.54	26-Jan-94	9:33	13.32	19-Feb-94	2:27	13.03	10-Mar-94	2:27	14.11
6-Jan-94	0:33	14.51	26-Jan-94	10:04	13.58	19-Feb-94	10:27	12.99	10-Mar-94	8:27	14.13
6-Jan-94	7:33	14.42	27-Jan-94	0:00		19-Feb-94	16:27	12.98	10-Mar-94	15:27	14.22
6-Jan-94	9:33	14.36	28-Jan-94	0:00		20-Feb-94	5:27	12.89	10-Mar-94	16:27	14.30
6-Jan-94	16:33	14.35	29-Jan-94	0:00		20-Feb-94	16:27	12.83	11-Mar-94	0:27	14.39
7-Jan-94	4:33	14.33	30-Jan-94	0:00		21-Feb-94	2:27	12.80	11-Mar-94	5:27	14.48
7-Jan-94	9:33	14.24	31-Jan-94	11:27	15.27	21-Feb-94	12:27	12.71	11-Mar-94	10:27	14.49
7-Jan-94	20:33	14.22	31-Jan-94	16:27	15.25	21-Feb-94	16:27	12.68	11-Mar-94	13:27	14.57
8-Jan-94	7:33	14.20	31-Jan-94	23:27	15.17	22-Feb-94	5:27	12.60	11-Mar-94	15:27	14.64
8-Jan-94	9:33	14.14	1-Feb-94	3:27	15.15	22-Feb-94	16:27	12.56	11-Mar-94	16:27	14.72
8-Jan-94	23:33	14.14	1-Feb-94	12:27	15.11	23-Feb-94	11:27	12.55	11-Mar-94	18:27	14.81
9-Jan-94	9:33	14.12	1-Feb-94	16:27	15.05	23-Feb-94	16:27	12.51	11-Mar-94	20:27	14.88
9-Jan-94	17:33	14.07	1-Feb-94	23:27	15.00	24-Feb-94	13:27	12.50	11-Mar-94	23:27	14.93
9-Jan-94	23:33	14.10	2-Feb-94	5:27	14.96	24-Feb-94	16:27	12.48	12-Mar-94	1:27	15.00
10-Jan-94	6:33	14.05	2-Feb-94	13:27	14.92	25-Feb-94	3:27	12.48	12-Mar-94	3:27	15.08
10-Jan-94	9:33	14.03	2-Feb-94	16:27	14.85	25-Feb-94	15:27	12.50	12-Mar-94	5:27	15.17
10-Jan-94	18:33	14.01	3-Feb-94	0:27	14.78	25-Feb-94	16:27	12.52	12-Mar-94	8:27	15.24
11-Jan-94	1:33	14.07	3-Feb-94	6:27	14.74	25-Feb-94	22:27	12.55	12-Mar-94	13:27	15.30
11-Jan-94	8:33	14.03	3-Feb-94	15:27	14.71	26-Feb-94	3:27	12.60	12-Mar-94	16:27	15.37
11-Jan-94	9:33	14.01	3-Feb-94	16:27	14.62	26-Feb-94	12:27	12.61	12-Mar-94	22:27	15.44
11-Jan-94	12:33	14.00	4-Feb-94	1:27	14.55	26-Feb-94	16:27	12.64	13-Mar-94	9:27	15.54
11-Jan-94	18:33	14.02	4-Feb-94	7:27	14.49	26-Feb-94	21:27	12.67	13-Mar-94	16:27	15.60
12-Jan-94	8:33	14.10	4-Feb-94	16:27	14.48	27-Feb-94	2:27	12.73	13-Mar-94	17:27	15.67
12-Jan-94	9:33	14.08	5-Feb-94	2:27	14.39	27-Feb-94	7:27	12.76	14-Mar-94	17:27	15.73
12-Jan-94	14:33	14.07	5-Feb-94	10:27	14.32	27-Feb-94	12:27	12.81			
12-Jan-94	19:33	14.09	5-Feb-94	16:27	14.28	27-Feb-94	16:27	12.84			
13-Jan-94	9:33	14.14	6-Feb-94	0:27	14.19	27-Feb-94	22:27	12.92			
13-Jan-94	16:33	14.11	6-Feb-94	11:27	14.12	28-Feb-94	4:27	13.01			
14-Jan-94	9:33	14.13	6-Feb-94	16:27	14.11	28-Feb-94	8:27	13.08			
15-Jan-94	0:33	14.11	7-Feb-94	1:27	14.05	28-Feb-94	13:27	13.16			
15-Jan-94	9:33	14.09	7-Feb-94	15:27	13.99	28-Feb-94	16:27	13.23			
15-Jan-94	16:33	14.05	7-Feb-94	16:27	14.00	28-Feb-94	21:27	13.31			
15-Jan-94	22:33	14.01	8-Feb-94	9:27	13.96	1-Mar-94	3:27	13.40			
16-Jan-94	3:33	13.99	8-Feb-94	14:27	13.98	1-Mar-94	8:27	13.45			
16-Jan-94	9:33	13.95	8-Feb-94	16:27	13.99	1-Mar-94	12:27	13.53			
16-Jan-94	21:33	13.92	9-Feb-94	8:27	13.97	1-Mar-94	16:27	13.61			
17-Jan-94	5:33	13.85	9-Feb-94	16:27	13.99	2-Mar-94	4:27	13.70			
17-Jan-94	9:33	13.80	10-Feb-94	15:27	14.01	2-Mar-94	10:27	13.76			
17-Jan-94	20:33	13.79	10-Feb-94	16:27	13.99	2-Mar-94	16:27	13.79			
18-Jan-94	7:33	13.72	10-Feb-94	20:27	14.00	2-Mar-94	23:27	13.81			
18-Jan-94	9:33	13.65	11-Feb-94	16:27	14.02	3-Mar-94	10:27	13.86			
18-Jan-94	18:33	13.65	12-Feb-94	1:27	14.03	3-Mar-94	16:27	13.87			
19-Jan-94	2:33	13.58	12-Feb-94	16:27	14.06	3-Mar-94	23:27	13.90			
19-Jan-94	9:33	13.52	12-Feb-94	21:27	14.08	4-Mar-94	6:27	13.92			
19-Jan-94	21:33	13.48	13-Feb-94	2:27	14.06	4-Mar-94	14:27	13.91			
20-Jan-94	7:33	13.40	13-Feb-94	10:27	14.05	4-Mar-94	16:27	13.89			

C-Well				C-Well				C-Well				C-Well		
date	time	elevation		date	time	elevation		date	time	elevation		date	time	elevation
20-Jan-94	9:33	13.31		13-Feb-94	16:27	14.03		5-Mar-94	0:27	13.84				
20-Jan-94	15:33	13.30		13-Feb-94	22:27	13.99		5-Mar-94	10:27	13.82				
21-Jan-94	2:33	13.27		14-Feb-94	3:27	13.97		5-Mar-94	16:27	13.80				
21-Jan-94	8:33	13.18		14-Feb-94	10:27	13.93		5-Mar-94	23:27	13.72				
21-Jan-94	9:33	13.14		14-Feb-94	16:27	13.90		6-Mar-94	5:27	13.63				
21-Jan-94	18:33	13.14		15-Feb-94	2:27	13.86		6-Mar-94	13:27	13.59				
22-Jan-94	8:33	13.09		15-Feb-94	14:27	13.83		6-Mar-94	16:27	13.54				
22-Jan-94	9:33	13.00		15-Feb-94	16:27	13.78		7-Mar-94	7:27	13.48				
22-Jan-94	17:33	13.00		16-Feb-94	0:27	13.69		7-Mar-94	12:27	13.44				
23-Jan-94	8:33	12.98		16-Feb-94	6:27	13.61		7-Mar-94	16:27	13.43				
23-Jan-94	9:33	12.91		16-Feb-94	11:27	13.59		8-Mar-94	0:27	13.40				
24-Jan-94	2:33	12.91		16-Feb-94	16:27	13.52		8-Mar-94	6:27	13.42				

DC-2
elevation (feet)
18.00
17.00
16.00
15.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93

DC-2 date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
11-Nov-93	15:27	16.26	18-Nov-93	22:27	16.36	1-Dec-93	13:27	15.75	14-Dec-93	13:27	15.71
11-Nov-93	22:27	16.25	19-Nov-93	0:27	16.45	1-Dec-93	14:27	15.81	14-Dec-93	14:27	15.75
12-Nov-93	8:27	16.17	19-Nov-93	1:27	16.50	1-Dec-93	17:27	15.73	14-Dec-93	16:27	15.66
12-Nov-93	9:27	16.18	19-Nov-93	3:27	16.59	1-Dec-93	22:27	15.68	14-Dec-93	20:27	15.58
12-Nov-93	10:27	16.27	19-Nov-93	4:27	16.65	2-Dec-93	12:27	15.70	14-Dec-93	22:27	15.54
12-Nov-93	11:27	16.44	19-Nov-93	7:27	16.74	2-Dec-93	14:27	15.79	15-Dec-93	5:27	15.45
12-Nov-93	12:27	16.37	19-Nov-93	11:27	16.82	2-Dec-93	20:27	15.88	15-Dec-93	11:27	15.39
12-Nov-93	14:27	16.29	19-Nov-93	15:27	16.88	2-Dec-93	22:27	15.89	15-Dec-93	12:27	15.39
12-Nov-93	20:27	16.20	19-Nov-93	22:27	16.86	3-Dec-93	6:27	15.93	15-Dec-93	13:27	15.50
12-Nov-93	22:27	16.18	20-Nov-93	3:27	16.77	3-Dec-93	22:27	15.92	15-Dec-93	14:27	15.67
13-Nov-93	8:27	16.10	20-Nov-93	7:27	16.68	4-Dec-93	13:27	15.83	15-Dec-93	17:27	15.61
13-Nov-93	10:27	16.13	20-Nov-93	11:27	16.59	4-Dec-93	22:27	15.77	16-Dec-93	22:27	15.59
13-Nov-93	11:27	16.44	20-Nov-93	16:27	16.50	5-Dec-93	10:27	15.69	16-Dec-93	2:27	15.62
13-Nov-93	12:27	16.84	20-Nov-93	21:27	16.41	5-Dec-93	15:27	15.67	16-Dec-93	11:27	15.70
13-Nov-93	13:27	16.73	20-Nov-93	22:27	16.40	5-Dec-93	21:27	15.63	16-Dec-93	13:27	15.72
13-Nov-93	14:27	16.61	21-Nov-93	4:27	16.31	5-Dec-93	22:27	15.64	16-Dec-93	14:27	15.80
13-Nov-93	15:27	16.64	21-Nov-93	11:27	16.22	6-Dec-93	5:27	15.60	16-Dec-93	22:27	15.82
13-Nov-93	16:27	16.72	21-Nov-93	17:27	16.14	6-Dec-93	14:27	15.55	17-Dec-93	2:27	15.87
13-Nov-93	19:27	16.80	21-Nov-93	22:27	16.07	6-Dec-93	22:27	15.53	17-Dec-93	7:27	15.95
13-Nov-93	22:27	16.88	22-Nov-93	5:27	15.98	7-Dec-93	4:27	15.49	17-Dec-93	15:27	15.97
14-Nov-93	0:27	16.93	22-Nov-93	13:27	15.89	7-Dec-93	10:27	15.46	17-Dec-93	22:27	15.98
14-Nov-93	2:27	16.96	22-Nov-93	21:27	15.80	7-Dec-93	22:27	15.42	18-Dec-93	8:27	15.96
14-Nov-93	9:27	17.03	22-Nov-93	22:27	15.79	8-Dec-93	6:27	15.39	18-Dec-93	22:27	15.87
14-Nov-93	11:27	17.10	23-Nov-93	8:27	15.70	8-Dec-93	16:27	15.36	19-Dec-93	6:27	15.85
14-Nov-93	12:27	17.58	23-Nov-93	16:27	15.61	8-Dec-93	22:27	15.34	19-Dec-93	11:27	15.80
14-Nov-93	13:27	17.76	23-Nov-93	22:27	15.60	9-Dec-93	6:27	15.31	19-Dec-93	19:27	15.76
14-Nov-93	14:27	17.52	24-Nov-93	6:27	15.68	9-Dec-93	8:27	15.34	19-Dec-93	22:27	15.75
14-Nov-93	15:27	17.33	24-Nov-93	21:27	15.67	9-Dec-93	10:27	15.37			
14-Nov-93	16:27	17.24	24-Nov-93	22:27	15.66	9-Dec-93	16:27	15.31			
14-Nov-93	18:27	17.16	25-Nov-93	4:27	15.68	9-Dec-93	22:27	15.30			
14-Nov-93	21:27	17.07	25-Nov-93	8:27	15.76	10-Dec-93	7:27	15.26			
14-Nov-93	22:27	17.05	25-Nov-93	10:27	15.83	10-Dec-93	8:27	15.27			
15-Nov-93	2:27	16.97	25-Nov-93	13:27	15.92	10-Dec-93	9:27	15.41			
15-Nov-93	5:27	16.89	25-Nov-93	15:27	15.99	10-Dec-93	10:27	15.59			
15-Nov-93	10:27	16.80	25-Nov-93	16:27	16.05	10-Dec-93	15:27	15.50			
15-Nov-93	11:27	16.78	25-Nov-93	18:27	16.14	10-Dec-93	22:27	15.41			
15-Nov-93	12:27	16.91	25-Nov-93	22:27	16.22	11-Dec-93	5:27	15.35			
15-Nov-93	13:27	17.34	26-Nov-93	3:27	16.31	11-Dec-93	9:27	15.34			
15-Nov-93	14:27	17.38	26-Nov-93	7:27	16.34	11-Dec-93	10:27	15.46			
15-Nov-93	15:27	17.09	26-Nov-93	16:27	16.32	11-Dec-93	11:27	15.61			
15-Nov-93	16:27	16.97	26-Nov-93	22:27	16.26	11-Dec-93	16:27	15.52			
15-Nov-93	17:27	16.90	27-Nov-93	5:27	16.18	11-Dec-93	22:27	15.45			
15-Nov-93	19:27	16.82	27-Nov-93	9:27	16.13	12-Dec-93	4:27	15.38			
15-Nov-93	22:27	16.74	27-Nov-93	21:27	16.06	12-Dec-93	9:27	15.35			
16-Nov-93	2:27	16.66	27-Nov-93	22:27	16.06	12-Dec-93	10:27	15.39			
16-Nov-93	7:27	16.57	28-Nov-93	9:27	15.97	12-Dec-93	11:27	15.62			
16-Nov-93	12:27	16.49	28-Nov-93	11:27	15.99	12-Dec-93	12:27	15.83			
16-Nov-93	13:27	16.59	28-Nov-93	12:27	16.04	12-Dec-93	13:27	15.76			
16-Nov-93	14:27	16.78	28-Nov-93	14:27	15.97	12-Dec-93	15:27	15.67			
16-Nov-93	15:27	16.67	28-Nov-93	21:27	15.92	12-Dec-93	20:27	15.58			
16-Nov-93	16:27	16.58	28-Nov-93	22:27	15.92	12-Dec-93	22:27	15.54			
16-Nov-93	18:27	16.51	29-Nov-93	8:27	15.86	13-Dec-93	4:27	15.48			
16-Nov-93	22:27	16.43	29-Nov-93	11:27	15.85	13-Dec-93	10:27	15.41			
17-Nov-93	4:27	16.35	29-Nov-93	12:27	15.92	13-Dec-93	11:27	15.49			
17-Nov-93	11:27	16.26	29-Nov-93	17:27	15.83	13-Dec-93	12:27	15.76			
17-Nov-93	14:27	16.26	29-Nov-93	22:27	15.80	13-Dec-93	13:27	15.91			
17-Nov-93	15:27	16.29	30-Nov-93	11:27	15.74	13-Dec-93	14:27	15.80			
17-Nov-93	18:27	16.21	30-Nov-93	12:27	15.78	13-Dec-93	18:27	15.72			
17-Nov-93	22:27	16.17	30-Nov-93	13:27	15.86	13-Dec-93	20:27	15.63			
18-Nov-93	8:27	16.12	30-Nov-93	17:27	15.77	13-Dec-93	22:27	15.59			
18-Nov-93	14:27	16.14	30-Nov-93	22:27	15.73	14-Dec-93	5:27	15.50			
18-Nov-93	18:27	16.21	1-Dec-93	9:27	15.66	14-Dec-93	11:27	15.43			
18-Nov-93	20:27	16.29	1-Dec-93	12:27	15.65	14-Dec-93	12:27	15.51			

DC-4			DC-4			DC-4			DC-4	
date	elevation		date	elevation		date	elevation		date	elevation
11/11/93 15:12	15.81		11/16/93 22:12	15.79		11/28/93 13:12	15.54		12/10/93 16:12	15.11
11/11/93 22:12	15.53		11/17/93 1:12	15.70		11/28/93 14:12	15.40		12/10/93 20:12	15.03
11/12/93 6:12	15.47		11/17/93 6:12	15.62		11/28/93 16:12	15.33		12/10/93 22:12	14.97
11/12/93 10:12	15.62		11/17/93 13:12	15.55		11/28/93 22:12	15.26		12/11/93 2:12	14.89
11/12/93 11:12	16.88		11/17/93 14:12	15.81		11/29/93 11:12	15.19		12/11/93 8:12	14.81
11/12/93 12:12	16.77		11/17/93 15:12	15.83		11/29/93 12:12	15.44		12/11/93 10:12	15.32
11/12/93 13:12	16.31		11/17/93 16:12	15.68		11/29/93 13:12	15.56		12/11/93 11:12	16.89
11/12/93 14:12	16.02		11/17/93 17:12	15.58		11/29/93 14:12	15.38		12/11/93 12:12	16.47
11/12/93 15:12	15.90		11/17/93 22:12	15.51		11/29/93 15:12	15.28		12/11/93 13:12	15.88
11/12/93 16:12	15.82		11/18/93 7:12	15.48		11/29/93 16:12	15.19		12/11/93 14:12	15.57
11/12/93 17:12	15.75		11/18/93 13:12	15.49		11/29/93 22:12	15.17		12/11/93 15:12	15.42
11/12/93 18:12	15.69		11/18/93 16:12	15.57		11/30/93 11:12	15.09		12/11/93 16:12	15.32
11/12/93 20:12	15.61		11/18/93 18:12	15.63		11/30/93 12:12	15.18		12/11/93 17:12	15.24
11/12/93 22:12	15.55		11/18/93 19:12	15.67		11/30/93 13:12	15.55		12/11/93 18:12	15.18
11/13/93 4:12	15.48		11/18/93 20:12	15.73		11/30/93 14:12	15.53		12/11/93 19:12	15.12
11/13/93 9:12	15.41		11/18/93 22:12	15.82		11/30/93 15:12	15.31		12/11/93 21:12	15.04
11/13/93 10:12	15.45		11/18/93 23:12	15.87		11/30/93 16:12	15.24		12/11/93 22:12	15.02
11/13/93 11:12	16.40		11/19/93 0:12	15.95		11/30/93 19:12	15.15		12/12/93 2:12	14.93
11/13/93 12:12	16.09		11/19/93 1:12	16.02		11/30/93 22:12	15.11		12/12/93 9:12	14.84
11/13/93 13:12	17.43		11/19/93 2:12	16.08		12/1/93 12:12	15.02		12/12/93 10:12	14.90
11/13/93 14:12	16.88		11/19/93 3:12	16.13		12/1/93 13:12	15.31		12/12/93 11:12	16.41
11/13/93 15:12	16.54		11/19/93 4:12	16.19		12/1/93 14:12	15.80		12/12/93 12:12	17.71
11/13/93 18:12	16.53		11/19/93 8:12	16.28		12/1/93 15:12	15.81		12/12/93 13:12	16.85
11/13/93 22:12	16.47		11/19/93 17:12	16.27		12/1/93 16:12	15.38		12/12/93 14:12	16.13
11/14/93 0:12	16.45		11/19/93 22:12	16.19		12/1/93 17:12	15.31		12/12/93 15:12	16.77
11/14/93 1:12	16.61		11/20/93 2:12	16.11		12/1/93 18:12	15.25		12/12/93 16:12	15.59
11/14/93 2:12	16.47		11/20/93 5:12	16.03		12/1/93 20:12	15.18		12/12/93 17:12	15.48
11/14/93 6:12	16.40		11/20/93 9:12	15.94		12/1/93 22:12	15.13		12/12/93 18:12	15.39
11/14/93 11:12	16.39		11/20/93 13:12	15.86		12/2/93 5:12	15.08		12/12/93 19:12	15.32
11/14/93 12:12	16.08		11/20/93 17:12	15.78		12/2/93 13:12	15.11		12/12/93 20:12	15.26
11/14/93 13:12	16.09		11/20/93 22:12	15.70		12/2/93 14:12	15.41		12/12/93 21:12	15.21
11/14/93 14:12	17.78		11/21/93 3:12	15.62		12/2/93 15:12	15.52		12/12/93 22:12	15.16
11/14/93 15:12	16.95		11/21/93 11:12	15.53		12/2/93 16:12	15.37		12/13/93 0:12	15.16
11/14/93 16:12	16.78		11/21/93 16:12	15.44		12/2/93 22:12	15.38		12/13/93 1:12	15.28
11/14/93 17:12	16.67		11/21/93 22:12	15.38		12/3/93 12:12	15.31		12/13/93 2:12	15.15
11/14/93 18:12	16.58		11/22/93 6:12	15.29		12/3/93 22:12	15.27		12/13/93 4:12	15.06
11/14/93 19:12	16.50		11/22/93 13:12	15.26		12/4/93 12:12	15.19		12/13/93 8:12	14.98
11/14/93 20:12	16.43		11/22/93 17:12	15.17		12/4/93 21:12	15.11		12/13/93 10:12	14.95
11/14/93 22:12	16.34		11/22/93 21:12	15.12		12/4/93 22:12	15.11		12/13/93 11:12	15.13
11/15/93 1:12	16.29		11/22/93 22:12	15.14		12/5/93 13:12	15.02		12/13/93 12:12	17.14
11/15/93 2:12	16.35		11/23/93 9:12	15.05		12/5/93 22:12	14.97		12/13/93 13:12	17.79
11/15/93 3:12	16.21		11/23/93 19:12	14.98		12/6/93 17:12	14.88		12/13/93 14:12	16.79
11/15/93 5:12	16.13		11/23/93 22:12	14.99		12/6/93 22:12	14.86		12/13/93 15:12	16.09
11/15/93 9:12	16.05		11/24/93 1:12	15.06		12/7/93 19:12	14.78		12/13/93 16:12	15.75
11/15/93 11:12	16.01		11/24/93 5:12	15.15		12/7/93 22:12	14.77		12/13/93 17:12	15.60
11/15/93 12:12	16.21		11/24/93 22:12	15.06		12/8/93 7:12	14.74		12/13/93 18:12	15.49
11/15/93 13:12	17.85		11/25/93 5:12	15.08		12/8/93 9:12	14.77		12/13/93 19:12	15.41
11/15/93 14:12	18.09		11/25/93 7:12	15.15		12/8/93 16:12	14.72		12/13/93 20:12	15.34
11/15/93 15:12	17.09		11/25/93 8:12	15.20		12/8/93 22:12	14.70		12/13/93 21:12	15.28
11/15/93 16:12	16.59		11/25/93 9:12	15.26		12/9/93 7:12	14.68		12/13/93 22:12	15.23
11/15/93 17:12	16.43		11/25/93 10:12	15.33		12/9/93 8:12	14.76		12/14/93 0:12	15.18
11/15/93 18:12	16.30		11/25/93 11:12	15.39		12/9/93 9:12	15.04		12/14/93 1:12	15.22
11/15/93 19:12	16.21		11/25/93 13:12	15.48		12/9/93 10:12	14.99		12/14/93 2:12	15.26
11/15/93 20:12	16.14		11/25/93 15:12	15.57		12/9/93 11:12	14.85		12/14/93 3:12	15.14
11/15/93 22:12	16.06		11/25/93 16:12	15.65		12/9/93 13:12	14.78		12/14/93 6:12	15.06
11/16/93 0:12	15.99		11/25/93 17:12	15.73		12/9/93 19:12	14.71		12/14/93 11:12	14.97
11/16/93 4:12	15.90		11/25/93 20:12	15.77		12/9/93 22:12	14.66		12/14/93 12:12	15.18
11/16/93 7:12	15.82		11/25/93 22:12	15.74		12/10/93 8:12	14.64		12/14/93 13:12	16.89
11/16/93 12:12	15.74		11/26/93 9:12	15.72		12/10/93 9:12	15.10		12/14/93 14:12	16.94
11/16/93 13:12	15.93		11/26/93 17:12	15.63		12/10/93 10:12	17.05		12/14/93 15:12	16.19
11/16/93 14:12	16.82		11/26/93 22:12	15.56		12/10/93 11:12	16.68		12/14/93 16:12	15.75
11/16/93 15:12	16.75		11/27/93 8:12	15.47		12/10/93 12:12	16.02		12/14/93 17:12	15.56
11/16/93 16:12	16.29		11/27/93 16:12	15.38		12/10/93 13:12	15.63		12/14/93 18:12	15.45
11/16/93 17:12	16.10		11/27/93 22:12	15.36		12/10/93 14:12	15.45		12/14/93 19:12	15.36
11/16/93 18:12	15.97		11/28/93 10:12	15.30		12/10/93 15:12	15.34		12/14/93 20:12	15.29
11/16/93 19:12	15.90		11/28/93 11:12	15.38		12/10/93 16:12	15.25		12/14/93 21:12	15.23
11/16/93 21:12	15.82		11/28/93 12:12	15.65		12/10/93 17:12	15.17		12/14/93 22:12	15.18

elevation (feet)
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
5-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
5-Mar-94
12-Mar-94
19-Mar-94
DC-4

DC-4		DC-4		DC-4		DC-4	
date	elevation	date	elevation	date	elevation	date	elevation
12/15/93 0:12	15.11	12/29/93 6:06	14.81	1/10/94 8:06	14.11	1/26/94 8:06	13.52
12/15/93 3:12	15.11	12/29/93 11:06	14.80	1/10/94 10:06	14.10	1/26/94 11:06	13.55
12/15/93 5:12	15.03	12/29/93 12:06	14.90	1/10/94 11:06	14.35	1/26/94 12:06	13.81
12/15/93 11:12	14.94	12/29/93 13:06	15.24	1/10/94 12:06	14.62	1/26/94 13:06	13.90
12/15/93 12:12	14.95	12/29/93 14:06	15.16	1/10/94 13:06	14.46	1/26/94 14:06	13.80
12/15/93 13:12	15.31	12/29/93 15:06	14.99	1/10/94 14:06	14.36	1/26/94 18:06	13.68
12/15/93 14:12	16.89	12/29/93 17:06	14.91	1/10/94 16:06	14.29	1/27/94 2:06	13.78
12/15/93 15:12	16.55	12/30/93 0:06	14.78	1/10/94 23:06	14.18	1/27/94 5:06	13.78
12/15/93 16:12	15.95	12/30/93 8:06	14.80	1/11/94 8:06	14.15	1/27/94 8:06	13.95
12/15/93 17:12	15.65	12/30/93 12:06	14.80	1/11/94 11:06	14.16	1/27/94 10:06	14.04
12/15/93 18:12	15.52	12/30/93 13:06	15.19	1/11/94 12:06	14.59	1/27/94 11:06	14.08
12/15/93 19:12	15.44	12/30/93 14:06	15.98	1/11/94 13:06	14.90	1/27/94 12:06	14.26
12/15/93 20:12	15.37	12/30/93 15:06	15.66	1/11/94 14:06	14.68	1/27/94 13:06	14.57
12/15/93 22:12	15.26	12/30/93 16:06	15.37	1/11/94 15:06	14.55	1/27/94 14:06	14.52
12/16/93 2:12	15.23	12/30/93 17:06	15.26	1/11/94 16:06	14.47	1/27/94 15:06	14.41
12/16/93 3:12	15.37	12/30/93 18:06	15.18	1/11/94 18:06	14.38	1/27/94 18:06	14.28
12/16/93 4:12	15.30	12/30/93 19:06	15.08	1/12/94 1:06	14.29	1/28/94 7:06	14.28
12/16/93 9:12	15.26	12/30/93 21:06	14.98	1/12/94 8:06	14.25	1/28/94 8:06	14.36
12/16/93 13:12	15.29	12/31/93 1:06	14.88	1/12/94 11:06	14.24	1/28/94 12:06	14.39
12/16/93 14:12	15.53	12/31/93 3:06	14.98	1/12/94 12:06	14.33	1/28/94 13:06	14.61
12/16/93 15:12	15.74	12/31/93 5:06	14.88	1/12/94 13:06	14.83	1/28/94 14:06	14.75
12/16/93 16:12	15.53	12/31/93 8:06	14.87	1/12/94 14:06	14.93	1/28/94 15:06	14.65
12/16/93 17:12	15.42	12/31/93 13:06	14.86	1/12/94 15:06	14.86	1/28/94 18:06	14.58
12/16/93 22:12	15.33	12/31/93 14:06	15.35	1/12/94 16:06	14.58	1/29/94 1:06	14.68
12/17/93 2:12	15.35	12/31/93 15:06	15.91	1/12/94 17:06	14.52	1/29/94 8:06	14.78
12/17/93 3:12	15.39	12/31/93 16:06	15.49	1/12/94 20:06	14.38	1/29/94 13:06	14.84
12/17/93 5:12	15.46	12/31/93 17:06	15.31	1/13/94 4:06	14.28	1/29/94 14:06	14.98
12/17/93 10:12	15.48	12/31/93 18:06	15.18	1/13/94 8:06	14.31	1/29/94 19:06	14.86
12/17/93 14:12	15.42	12/31/93 19:06	15.08	1/13/94 12:06	14.28	1/30/94 2:06	14.89
12/17/93 22:12	15.41	12/31/93 21:06	14.98	1/13/94 13:06	14.43	1/30/94 4:06	14.98
12/18/93 12:12	15.32	1/1/94 0:06	14.88	1/13/94 14:06	14.78	1/30/94 8:06	14.96
12/18/93 22:12	15.25	1/1/94 2:06	14.88	1/13/94 15:06	14.70	1/30/94 14:06	14.98
12/19/93 11:12	15.21	1/1/94 4:06	14.98	1/13/94 16:06	14.58	1/31/94 1:06	14.89
12/19/93 22:12	15.13	1/1/94 6:06	14.88	1/13/94 17:06	14.50	1/31/94 3:06	14.98
12/20/93 8:06	15.06	1/1/94 8:06	14.89	1/13/94 20:06	14.38	1/31/94 8:06	14.98
12/20/93 21:06	14.88	1/1/94 14:06	14.83	1/14/94 2:06	14.28	1/31/94 23:06	14.79
12/21/93 7:06	14.98	1/1/94 15:06	15.10	1/14/94 8:06	14.28	2/1/94 3:06	14.79
12/21/93 8:06	14.99	1/1/94 16:06	15.02	1/14/94 8:06	14.31	2/1/94 4:06	14.89
12/21/93 22:06	14.88	1/1/94 17:06	14.92	1/14/94 13:06	14.29	2/1/94 6:06	14.89
12/22/93 8:06	14.91	1/1/94 20:06	14.78	1/14/94 14:06	14.43	2/1/94 8:06	14.89
12/22/93 20:06	14.88	1/2/94 3:06	14.78	1/14/94 15:06	14.57	2/2/94 0:06	14.68
12/23/93 0:06	14.98	1/2/94 8:06	14.77	1/14/94 16:06	14.45	2/2/94 8:06	14.74
12/23/93 2:06	15.08	1/2/94 15:06	14.74	1/14/94 18:06	14.28	2/2/94 22:06	14.58
12/23/93 7:06	14.98	1/3/94 4:06	14.68	1/15/94 2:06	14.28	2/3/94 8:06	14.60
12/23/93 8:06	15.06	1/3/94 8:06	14.66	1/15/94 8:06	14.25	2/3/94 15:06	14.57
12/23/93 22:06	14.98	1/3/94 20:06	14.58	1/15/94 21:06	14.08	2/4/94 7:06	14.49
12/24/93 8:06	14.97	1/4/94 8:06	14.56	1/16/94 8:06	14.14	2/4/94 8:06	14.47
12/24/93 14:06	14.99	1/4/94 22:06	14.48	1/17/94 8:06	13.98	2/4/94 23:06	14.38
12/24/93 18:06	15.07	1/5/94 8:06	14.43	1/17/94 8:06	14.06	2/5/94 8:06	14.34
12/24/93 20:06	15.08	1/5/94 15:06	14.40	1/18/94 1:06	13.98	2/5/94 15:06	14.33
12/26/93 8:06	15.15	1/6/94 1:06	14.28	1/18/94 8:06	13.98	2/5/94 22:06	14.18
12/25/93 22:06	14.99	1/6/94 8:06	14.36	1/19/94 1:06	13.89	2/6/94 7:06	14.18
12/26/93 8:06	14.99	1/6/94 18:06	14.30	1/19/94 8:06	13.85	2/6/94 8:06	14.21
12/27/93 1:06	14.88	1/7/94 7:06	14.18	1/20/94 3:06	13.68	2/6/94 15:06	14.20
12/27/93 8:06	14.86	1/7/94 8:06	14.25	1/20/94 8:06	13.73	2/6/94 23:06	14.08
12/27/93 11:06	14.89	1/8/94 8:06	14.17	1/21/94 1:06	13.58	2/7/94 8:06	14.11
12/27/93 12:06	14.99	1/8/94 9:06	14.22	1/21/94 8:06	13.60	2/7/94 17:06	14.09
12/27/93 13:06	14.90	1/8/94 10:06	14.35	1/22/94 2:06	13.48	2/8/94 8:06	14.05
12/27/93 20:06	14.78	1/8/94 11:06	14.29	1/22/94 8:06	13.48	2/8/94 10:06	14.06
12/28/93 8:06	14.82	1/8/94 15:06	14.20	1/22/94 22:06	13.38	2/8/94 11:06	14.21
12/28/93 11:06	14.82	1/9/94 4:06	14.06	1/23/94 8:06	13.39	2/8/94 12:06	14.36
12/28/93 12:06	15.20	1/9/94 8:06	14.13	1/24/94 7:06	13.28	2/8/94 13:06	14.25
12/28/93 13:06	15.31	1/9/94 10:06	14.19	1/24/94 8:06	13.32	2/8/94 15:06	14.17
12/28/93 14:06	15.08	1/9/94 11:06	14.34	1/25/94 0:06	13.26	2/8/94 22:06	14.08
12/28/93 15:06	15.00	1/9/94 12:06	14.26	1/25/94 8:06	13.31	2/9/94 8:06	14.08
12/28/93 18:06	14.88	1/9/94 15:06	14.17	1/25/94 17:06	13.40	2/9/94 11:06	14.09
12/29/93 3:06	14.78	1/10/94 1:06	14.08	1/26/94 5:06	13.48	2/9/94 12:06	14.32

DC-4			DC-4			DC-4				
date	elevation		date	elevation		date	elevation			
2/10/94 13:06	14.35		2/27/94 13:06	13.30		3/9/94 8:06	14.47			
2/10/94 14:06	14.32		2/27/94 14:06	13.44		3/9/94 18:06	14.38			
2/10/94 15:06	14.25		2/27/94 15:06	13.56		3/10/94 5:06	14.28			
2/10/94 20:06	14.08		2/27/94 18:06	13.48		3/10/94 8:06	14.32			
2/11/94 1:06	14.06		2/28/94 0:06	13.38		3/10/94 15:06	14.28			
2/11/94 3:06	14.18		2/28/94 1:06	13.38		3/10/94 22:06	14.18			
2/11/94 8:06	14.18		2/28/94 2:06	14.38		3/11/94 8:06	14.11			
2/11/94 12:06	14.15		3/1/94 2:06	14.78		3/11/94 17:06	14.04			
2/11/94 13:06	14.35		3/1/94 3:06	15.78		3/12/94 4:06	13.88			
2/11/94 14:06	14.53		3/2/94 3:06	15.98		3/12/94 8:06	13.92			
2/11/94 15:06	14.41		3/2/94 4:06	15.88		3/12/94 18:06	13.93			
2/11/94 16:06	14.34		3/2/94 5:06	15.48		3/13/94 8:06	13.93			
2/11/94 21:06	14.18		3/2/94 6:06	15.08		3/13/94 17:06	14.01			
2/12/94 1:06	14.16		3/2/94 7:06	14.78		3/13/94 22:06	14.08			
2/12/94 2:06	14.38		3/2/94 8:06	14.68		3/14/94 5:06	14.18			
2/12/94 4:06	14.28		3/2/94 9:06	14.53						
2/12/94 8:06	14.27		3/2/94 10:06	14.42						
2/12/94 13:06	14.25		3/2/94 11:06	14.34						
2/12/94 14:06	14.43		3/2/94 12:06	14.28						
2/12/94 18:06	14.36		3/2/94 14:06	14.22						
2/12/94 20:06	14.28		3/2/94 15:06	14.36						
2/13/94 1:06	14.18		3/2/94 17:06	14.30						
2/13/94 2:06	14.18		3/2/94 18:06	14.18						
2/13/94 3:06	14.28		3/2/94 20:06	14.08						
2/13/94 5:06	14.28		3/2/94 23:06	14.08						
2/13/94 8:06	14.28		3/3/94 1:06	13.98						
2/13/94 17:06	14.24		3/3/94 2:06	14.18						
2/14/94 2:06	14.06		3/3/94 3:06	15.18						
2/14/94 8:06	14.17		3/4/94 3:06	15.98						
2/14/94 18:06	14.14		3/5/94 3:06	15.98						
2/14/94 23:06	14.08		3/5/94 4:06	15.98						
2/15/94 8:06	14.07		3/5/94 5:06	15.88						
2/15/94 18:06	14.04		3/5/94 6:06	15.38						
2/16/94 2:06	13.88		3/5/94 7:06	15.18						
2/16/94 8:06	13.94		3/5/94 8:06	15.05						
2/16/94 15:06	13.92		3/5/94 9:06	14.91						
2/18/94 23:06	13.78		3/5/94 10:06	14.81						
2/17/94 8:06	13.78		3/5/94 11:06	14.73						
2/17/94 8:06	13.80		3/5/94 12:06	14.66						
2/17/94 15:06	13.82		3/5/94 14:06	14.57						
2/17/94 19:06	13.68		3/5/94 15:06	14.65						
2/18/94 8:06	13.66		3/5/94 16:06	14.73						
2/18/94 20:06	13.48		3/5/94 17:06	14.62						
2/19/94 8:06	13.50		3/5/94 18:06	14.48						
2/19/94 15:06	13.48		3/6/94 2:06	14.38						
2/19/94 22:06	13.38		3/6/94 3:06	14.78						
2/20/94 8:06	13.36		3/6/94 4:06	15.78						
2/20/94 18:06	13.31		3/7/94 4:06	15.88						
2/21/94 8:06	13.23		3/7/94 5:06	15.78						
2/22/94 8:06	13.14		3/7/94 6:06	15.28						
2/22/94 18:06	13.12		3/7/94 7:06	15.18						
2/23/94 7:06	12.98		3/7/94 8:06	15.08						
2/23/94 8:06	13.06		3/7/94 9:06	14.94						
2/23/94 15:06	13.08		3/7/94 10:06	14.86						
2/23/94 20:06	12.98		3/7/94 11:06	14.80						
2/24/94 8:06	13.01		3/7/94 12:06	14.75						
2/24/94 18:06	12.98		3/7/94 14:06	14.66						
2/25/94 8:06	12.97		3/7/94 17:06	14.57						
2/25/94 14:06	13.06		3/7/94 22:06	14.48						
2/26/94 6:06	13.08		3/8/94 3:06	14.38						
2/26/94 8:06	13.09		3/8/94 4:06	14.68						
2/26/94 13:06	13.14		3/8/94 5:06	14.88						
2/26/94 17:06	13.18		3/8/94 6:06	14.68						
2/27/94 0:06	13.08		3/8/94 7:06	14.58						
2/27/94 2:06	13.18		3/8/94 8:06	14.58						
2/27/94 8:06	13.28		3/8/94 13:06	14.51						
2/27/94 8:06	13.29		3/8/94 3:06	14.48						

DC-7
elevation (feet)
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
5-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
5-Mar-94
12-Mar-94
19-Mar-94

DC-7			DC-7			DC-7			DC-7		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
11-Nov-93	15:18	14.13	16-Nov-93	15:18	15.09	28-Nov-93	10:18	13.99	11-Dec-93	22:18	13.94
11-Nov-93	22:18	14.18	16-Nov-93	18:18	15.09	28-Nov-93	12:18	14.01	12-Dec-93	3:18	13.85
12-Nov-93	4:18	14.16	16-Nov-93	20:18	15.02	28-Nov-93	14:18	14.06	12-Dec-93	10:18	13.77
12-Nov-93	10:18	14.15	16-Nov-93	22:18	14.94	28-Nov-93	21:18	14.04	12-Dec-93	11:18	13.81
12-Nov-93	11:18	14.21	17-Nov-93	0:18	14.87	28-Nov-93	22:18	14.03	12-Dec-93	12:18	13.98
12-Nov-93	12:18	14.31	17-Nov-93	4:18	14.80	29-Nov-93	8:18	13.97	12-Dec-93	13:18	14.14
12-Nov-93	14:18	14.40	17-Nov-93	7:18	14.72	29-Nov-93	12:18	13.95	12-Dec-93	14:18	14.24
12-Nov-93	20:18	14.38	17-Nov-93	10:18	14.64	29-Nov-93	15:18	14.01	12-Dec-93	16:18	14.32
12-Nov-93	22:18	14.36	17-Nov-93	14:18	14.58	29-Nov-93	20:18	14.00	12-Dec-93	19:18	14.30
13-Nov-93	5:18	14.28	17-Nov-93	16:18	14.62	29-Nov-93	22:18	13.97	12-Dec-93	22:18	14.22
13-Nov-93	10:18	14.22	17-Nov-93	21:18	14.53	30-Nov-93	8:18	13.88	13-Dec-93	3:18	14.14
13-Nov-93	11:18	14.27	17-Nov-93	22:18	14.51	30-Nov-93	13:18	13.89	13-Dec-93	8:18	14.05
13-Nov-93	12:18	14.50	18-Nov-93	3:18	14.44	30-Nov-93	16:18	13.96	13-Dec-93	11:18	14.01
13-Nov-93	13:18	14.74	18-Nov-93	9:18	14.35	30-Nov-93	22:18	13.94	13-Dec-93	12:18	14.08
13-Nov-93	14:18	14.85	18-Nov-93	14:18	14.29	1-Dec-93	7:18	13.86	13-Dec-93	13:18	14.27
13-Nov-93	16:18	14.94	18-Nov-93	20:18	14.32	1-Dec-93	13:18	13.84	13-Dec-93	14:18	14.41
13-Nov-93	17:18	14.99	18-Nov-93	22:18	14.36	1-Dec-93	15:18	13.93	13-Dec-93	15:18	14.48
13-Nov-93	18:18	15.04	19-Nov-93	2:18	14.43	1-Dec-93	18:18	13.98	13-Dec-93	17:18	14.51
13-Nov-93	19:18	15.10	19-Nov-93	4:18	14.50	1-Dec-93	22:18	13.97	13-Dec-93	21:18	14.42
13-Nov-93	20:18	15.15	19-Nov-93	6:18	14.58	2-Dec-93	3:18	13.91	13-Dec-93	22:18	14.39
13-Nov-93	22:18	15.23	19-Nov-93	9:18	14.66	2-Dec-93	12:18	13.85	14-Dec-93	1:18	14.30
13-Nov-93	23:18	15.28	19-Nov-93	13:18	14.74	2-Dec-93	16:18	13.94	14-Dec-93	5:18	14.22
14-Nov-93	0:18	15.33	19-Nov-93	17:18	14.81	2-Dec-93	22:18	14.02	14-Dec-93	9:18	14.13
14-Nov-93	2:18	15.40	19-Nov-93	22:18	14.79	3-Dec-93	5:18	14.05	14-Dec-93	12:18	14.08
14-Nov-93	4:18	15.32	20-Nov-93	4:18	14.70	3-Dec-93	22:18	14.03	14-Dec-93	13:18	14.15
14-Nov-93	8:18	15.24	20-Nov-93	9:18	14.63	4-Dec-93	6:18	13.96	14-Dec-93	14:18	14.27
14-Nov-93	10:18	15.22	20-Nov-93	14:18	14.54	4-Dec-93	14:18	13.88	14-Dec-93	15:18	14.35
14-Nov-93	11:18	15.25	20-Nov-93	19:18	14.45	4-Dec-93	22:18	13.81	14-Dec-93	17:18	14.41
14-Nov-93	12:18	15.42	20-Nov-93	22:18	14.39	5-Dec-93	5:18	13.75	14-Dec-93	20:18	14.37
14-Nov-93	13:18	15.89	21-Nov-93	3:18	14.30	5-Dec-93	16:18	13.66	14-Dec-93	22:18	14.31
14-Nov-93	14:18	16.12	21-Nov-93	8:18	14.21	5-Dec-93	22:18	13.62	15-Dec-93	1:18	14.22
14-Nov-93	15:18	16.08	21-Nov-93	13:18	14.12	6-Dec-93	7:18	13.56	15-Dec-93	6:18	14.13
14-Nov-93	16:18	15.99	21-Nov-93	18:18	14.03	6-Dec-93	17:18	13.53	15-Dec-93	10:18	14.05
14-Nov-93	17:18	15.90	21-Nov-93	22:18	13.95	6-Dec-93	22:18	13.51	15-Dec-93	13:18	14.02
14-Nov-93	18:18	15.82	22-Nov-93	3:18	13.86	7-Dec-93	6:18	13.46	15-Dec-93	14:18	14.10
14-Nov-93	19:18	15.78	22-Nov-93	9:18	13.77	7-Dec-93	20:18	13.44	15-Dec-93	15:18	14.20
14-Nov-93	20:18	15.70	22-Nov-93	15:18	13.68	7-Dec-93	22:18	13.43	15-Dec-93	17:18	14.29
14-Nov-93	21:18	15.64	22-Nov-93	22:18	13.59	8-Dec-93	8:18	13.38	15-Dec-93	22:18	14.27
14-Nov-93	22:18	15.59	23-Nov-93	5:18	13.50	8-Dec-93	15:18	13.42	16-Dec-93	2:18	14.20
15-Nov-93	0:18	15.50	23-Nov-93	14:18	13.41	8-Dec-93	22:18	13.38	16-Dec-93	8:18	14.18
15-Nov-93	4:18	15.43	23-Nov-93	22:18	13.34	9-Dec-93	6:18	13.33	16-Dec-93	13:18	14.18
15-Nov-93	6:18	15.35	24-Nov-93	10:18	13.36	9-Dec-93	9:18	13.35	16-Dec-93	15:18	14.25
15-Nov-93	8:18	15.27	24-Nov-93	17:18	13.41	9-Dec-93	12:18	13.43	16-Dec-93	18:18	14.29
15-Nov-93	10:18	15.19	24-Nov-93	22:18	13.41	9-Dec-93	18:18	13.46	16-Dec-93	22:18	14.28
15-Nov-93	12:18	15.18	25-Nov-93	8:18	13.42	9-Dec-93	22:18	13.43	17-Dec-93	13:18	14.30
15-Nov-93	13:18	15.34	25-Nov-93	11:18	13.50	10-Dec-93	8:18	13.37	17-Dec-93	17:18	14.33
15-Nov-93	14:18	15.60	25-Nov-93	15:18	13.59	10-Dec-93	9:18	13.40	17-Dec-93	22:18	14.30
15-Nov-93	15:18	15.72	25-Nov-93	17:18	13.68	10-Dec-93	10:18	13.50	18-Dec-93	4:18	14.24
15-Nov-93	17:18	15.66	25-Nov-93	18:18	13.73	10-Dec-93	11:18	13.62	18-Dec-93	11:18	14.17
15-Nov-93	18:18	15.60	25-Nov-93	19:18	13.79	10-Dec-93	12:18	13.71	18-Dec-93	19:18	14.08
15-Nov-93	19:18	15.54	25-Nov-93	20:18	13.85	10-Dec-93	13:18	13.77	18-Dec-93	22:18	14.05
15-Nov-93	20:18	15.49	25-Nov-93	21:18	13.90	10-Dec-93	16:18	13.85	19-Dec-93	3:18	13.99
15-Nov-93	21:18	15.43	25-Nov-93	22:18	13.96	10-Dec-93	21:18	13.82	19-Dec-93	13:18	13.90
15-Nov-93	22:18	15.38	26-Nov-93	0:18	14.04	10-Dec-93	22:18	13.81	19-Dec-93	22:18	13.81
15-Nov-93	23:18	15.32	26-Nov-93	7:18	14.13	11-Dec-93	5:18	13.72	20-Dec-93	7:18	13.72
16-Nov-93	1:18	15.24	26-Nov-93	12:18	14.19	11-Dec-93	9:18	13.67	20-Dec-93	8:18	13.90
16-Nov-93	4:18	15.17	26-Nov-93	22:18	14.17	11-Dec-93	10:18	13.68	21-Dec-93	4:00	13.84
16-Nov-93	6:18	15.10	27-Nov-93	5:18	14.12	11-Dec-93	11:18	13.77	21-Dec-93	12:00	13.81
16-Nov-93	8:18	15.03	27-Nov-93	9:18	14.08	11-Dec-93	12:18	13.87	21-Dec-93	19:00	13.82
16-Nov-93	11:18	14.94	27-Nov-93	21:18	14.07	11-Dec-93	13:18	13.94	22-Dec-93	14:00	13.80
16-Nov-93	13:18	14.93	27-Nov-93	22:18	14.05	11-Dec-93	16:18	14.01	22-Dec-93	19:00	13.79
16-Nov-93	14:18	14.99	28-Nov-93	5:18	14.02	11-Dec-93	20:18	13.97	23-Dec-93	8:00	13.81

DC-7			DC-7			DC-7			DC-7		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
23-Dec-93	14:00	13.89	9-Jan-94	19:00	12.94	26-Jan-94	22:00	12.30	11-Feb-94	23:00	12.85
23-Dec-93	19:00	13.90	9-Jan-94	23:00	12.98	27-Jan-94	2:00	12.36	12-Feb-94	1:00	12.94
24-Dec-93	3:00	13.93	10-Jan-94	5:00	12.93	27-Jan-94	12:00	12.43	12-Feb-94	11:00	12.88
24-Dec-93	15:00	13.90	10-Jan-94	19:00	12.89	27-Jan-94	18:00	12.50	12-Feb-94	14:00	12.93
24-Dec-93	19:00	13.88	10-Jan-94	21:00	12.91	27-Jan-94	19:00	12.52	12-Feb-94	19:00	12.89
25-Dec-93	0:00	13.89	10-Jan-94	22:00	13.00	27-Jan-94	22:00	12.59	12-Feb-94	23:00	12.87
25-Dec-93	6:00	13.98	11-Jan-94	3:00	12.98	27-Jan-94	23:00	12.67	13-Feb-94	2:00	12.93
25-Dec-93	14:00	14.01	11-Jan-94	10:00	12.92	28-Jan-94	1:00	12.74	13-Feb-94	9:00	12.88
25-Dec-93	19:00	14.03	11-Jan-94	19:00	12.89	28-Jan-94	7:00	12.83	13-Feb-94	12:00	12.87
26-Dec-93	5:00	14.01	11-Jan-94	21:00	12.89	28-Jan-94	15:00	12.92	13-Feb-94	15:00	12.91
26-Dec-93	18:00	13.94	11-Jan-94	22:00	12.93	28-Jan-94	19:00	12.97	13-Feb-94	19:00	12.92
26-Dec-93	19:00	13.92	11-Jan-94	23:00	13.04	28-Jan-94	23:00	13.04	14-Feb-94	1:00	12.88
27-Dec-93	7:00	13.85	12-Jan-94	1:00	13.07	29-Jan-94	1:00	13.12	14-Feb-94	10:00	12.84
27-Dec-93	19:00	13.78	12-Jan-94	7:00	12.99	29-Jan-94	6:00	13.20	14-Feb-94	19:00	12.81
28-Dec-93	5:00	13.75	12-Jan-94	18:00	12.92	29-Jan-94	10:00	13.29	15-Feb-94	5:00	12.79
28-Dec-93	13:00	13.72	12-Jan-94	19:00	12.93	29-Jan-94	14:00	13.38	15-Feb-94	18:00	12.75
28-Dec-93	19:00	13.70	12-Jan-94	22:00	12.92	29-Jan-94	18:00	13.45	15-Feb-94	19:00	12.75
28-Dec-93	22:00	13.73	12-Jan-94	23:00	13.00	29-Jan-94	19:00	13.48	16-Feb-94	10:00	12.69
28-Dec-93	23:00	13.81	13-Jan-94	0:00	13.10	30-Jan-94	0:00	13.57	16-Feb-94	18:00	12.65
29-Dec-93	3:00	13.74	13-Jan-94	6:00	13.07	30-Jan-94	6:00	13.66	16-Feb-94	19:00	12.66
29-Dec-93	13:00	13.68	13-Jan-94	12:00	13.00	30-Jan-94	10:00	13.72	17-Feb-94	8:00	12.60
29-Dec-93	19:00	13.67	13-Jan-94	19:00	12.96	30-Jan-94	16:00	13.78	17-Feb-94	19:00	12.55
29-Dec-93	22:00	13.67	13-Jan-94	23:00	12.95	30-Jan-94	19:00	13.80	18-Feb-94	6:00	12.51
30-Dec-93	0:00	13.76	14-Jan-94	0:00	13.03	31-Jan-94	13:00	13.82	18-Feb-94	12:00	12.47
30-Dec-93	3:00	13.72	14-Jan-94	2:00	13.08	31-Jan-94	19:00	13.81	18-Feb-94	17:00	12.45
30-Dec-93	17:00	13.67	14-Jan-94	9:00	13.00	1-Feb-94	4:00	13.76	18-Feb-94	19:00	12.43
30-Dec-93	19:00	13.67	14-Jan-94	19:00	12.96	1-Feb-94	13:00	13.71	19-Feb-94	6:00	12.37
30-Dec-93	23:00	13.68	15-Jan-94	0:00	12.95	1-Feb-94	19:00	13.69	19-Feb-94	16:00	12.31
31-Dec-93	0:00	13.81	15-Jan-94	2:00	13.01	2-Feb-94	11:00	13.61	19-Feb-94	19:00	12.29
31-Dec-93	3:00	13.80	15-Jan-94	10:00	12.94	2-Feb-94	19:00	13.56	20-Feb-94	1:00	12.26
31-Dec-93	7:00	13.75	15-Jan-94	19:00	12.91	3-Feb-94	2:00	13.53	20-Feb-94	12:00	12.20
31-Dec-93	17:00	13.69	16-Jan-94	3:00	12.88	3-Feb-94	17:00	13.44	20-Feb-94	19:00	12.16
31-Dec-93	19:00	13.68	16-Jan-94	17:00	12.85	3-Feb-94	19:00	13.44	21-Feb-94	8:00	12.09
31-Dec-93	23:00	13.67	16-Jan-94	19:00	12.84	4-Feb-94	7:00	13.36	21-Feb-94	19:00	12.03
1-Jan-94	0:00	13.72	17-Jan-94	7:00	12.81	4-Feb-94	17:00	13.31	22-Feb-94	7:00	12.01
1-Jan-94	1:00	13.83	17-Jan-94	19:00	12.79	4-Feb-94	19:00	13.30	22-Feb-94	19:00	11.98
1-Jan-94	8:00	13.74	18-Jan-94	5:00	12.77	5-Feb-94	3:00	13.25	23-Feb-94	6:00	11.96
1-Jan-94	13:00	13.70	18-Jan-94	17:00	12.73	5-Feb-94	19:00	13.17	23-Feb-94	18:00	11.92
1-Jan-94	19:00	13.66	18-Jan-94	19:00	12.72	6-Feb-94	10:00	13.08	23-Feb-94	19:00	11.93
2-Jan-94	1:00	13.65	19-Jan-94	18:00	12.69	6-Feb-94	18:00	13.05	24-Feb-94	5:00	11.89
2-Jan-94	6:00	13.63	19-Jan-94	19:00	12.67	6-Feb-94	19:00	13.04	24-Feb-94	13:00	11.87
2-Jan-94	14:00	13.60	20-Jan-94	3:00	12.64	7-Feb-94	2:00	13.01	24-Feb-94	19:00	11.83
2-Jan-94	19:00	13.58	20-Jan-94	9:00	12.60	7-Feb-94	10:00	12.96	25-Feb-94	4:00	11.80
3-Jan-94	9:00	13.52	20-Jan-94	19:00	12.55	7-Feb-94	19:00	12.94	25-Feb-94	15:00	11.77
3-Jan-94	19:00	13.48	21-Jan-94	12:00	12.48	8-Feb-94	2:00	12.92	25-Feb-94	19:00	11.76
4-Jan-94	7:00	13.43	21-Jan-94	19:00	12.45	8-Feb-94	9:00	12.89	26-Feb-94	19:00	11.75
4-Jan-94	19:00	13.37	22-Jan-94	10:00	12.39	8-Feb-94	19:00	12.87	26-Feb-94	23:00	11.76
5-Jan-94	4:00	13.34	22-Jan-94	19:00	12.35	8-Feb-94	21:00	12.87	27-Feb-94	1:00	11.83
5-Jan-94	11:00	13.30	23-Jan-94	6:00	12.31	8-Feb-94	23:00	12.94	27-Feb-94	8:00	11.81
5-Jan-94	19:00	13.26	23-Jan-94	18:00	12.26	9-Feb-94	5:00	12.88	27-Feb-94	11:00	11.80
6-Jan-94	5:00	13.21	23-Jan-94	19:00	12.26	9-Feb-94	18:00	12.85	27-Feb-94	13:00	11.89
6-Jan-94	19:00	13.16	24-Jan-94	8:00	12.21	9-Feb-94	19:00	12.85	27-Feb-94	19:00	11.89
7-Jan-94	4:00	13.12	24-Jan-94	15:00	12.19	9-Feb-94	22:00	12.87	27-Feb-94	23:00	11.87
7-Jan-94	16:00	13.07	24-Jan-94	19:00	12.18	10-Feb-94	0:00	12.92	28-Feb-94	0:00	11.92
7-Jan-94	19:00	13.07	25-Jan-94	7:00	12.15	10-Feb-94	7:00	12.86	28-Feb-94	2:00	11.99
8-Jan-94	9:00	13.03	25-Jan-94	19:00	12.13	10-Feb-94	19:00	12.84	28-Feb-94	8:00	11.97
8-Jan-94	19:00	13.00	26-Jan-94	2:00	12.15	10-Feb-94	22:00	12.83	28-Feb-94	11:00	11.95
8-Jan-94	21:00	13.03	26-Jan-94	9:00	12.19	11-Feb-94	0:00	12.90	28-Feb-94	12:00	12.01
9-Jan-94	2:00	12.99	26-Jan-94	13:00	12.23	11-Feb-94	5:00	12.88	28-Feb-94	13:00	12.13
9-Jan-94	18:00	12.94	26-Jan-94	19:00	12.27	11-Feb-94	19:00	12.84	28-Feb-94	14:00	12.21

DC-7			DC-7		
date	time	elevation	date	time	elevation
28-Feb-94	16:00	12.29	12-Mar-94	15:00	13.41
28-Feb-94	19:00	12.33	12-Mar-94	19:00	13.47
1-Mar-94	0:00	12.32	12-Mar-94	23:00	13.56
1-Mar-94	2:00	12.40	13-Mar-94	2:00	13.64
1-Mar-94	8:00	12.38	13-Mar-94	5:00	13.71
1-Mar-94	12:00	12.36	13-Mar-94	8:00	13.78
1-Mar-94	13:00	12.46	13-Mar-94	11:00	13.86
1-Mar-94	14:00	12.62	13-Mar-94	15:00	13.94
1-Mar-94	17:00	12.69	13-Mar-94	19:00	14.01
1-Mar-94	19:00	12.70	14-Mar-94	3:00	14.10
2-Mar-94	13:00	12.72	14-Mar-94	14:00	14.14
2-Mar-94	14:00	12.83	14-Mar-94	19:00	14.14
2-Mar-94	16:00	12.89			
2-Mar-94	19:00	12.89			
3-Mar-94	12:00	12.81			
3-Mar-94	14:00	12.83			
3-Mar-94	16:00	12.89			
3-Mar-94	19:00	12.87			
4-Mar-94	4:00	12.89			
4-Mar-94	19:00	12.91			
5-Mar-94	13:00	12.89			
5-Mar-94	19:00	12.85			
6-Mar-94	3:00	12.82			
6-Mar-94	13:00	12.77			
6-Mar-94	19:00	12.74			
7-Mar-94	7:00	12.68			
7-Mar-94	19:00	12.62			
8-Mar-94	19:00	12.60			
9-Mar-94	3:00	12.65			
9-Mar-94	9:00	12.72			
9-Mar-94	19:00	12.81			
10-Mar-94	3:00	12.89			
10-Mar-94	12:00	12.98			
10-Mar-94	19:00	13.04			
10-Mar-94	23:00	13.07			
11-Mar-94	7:00	13.16			
11-Mar-94	14:00	13.24			
11-Mar-94	19:00	13.28			
12-Mar-94	8:00	13.35			

DC-10
elevation (feet)
19.00
18.00
17.00
16.00
15.00
14.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
5-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
5-Mar-94
12-Mar-94
19-Mar-94

dc-10			dc-10			dc-10			dc-10		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
11-Nov-93	16:03	18.21	16-Nov-93	22:03	17.68	24-Nov-93	22:03	17.38	3-Dec-93	14:03	17.51
11-Nov-93	20:03	18.12	17-Nov-93	8:03	17.59	25-Nov-93	3:03	17.35	3-Dec-93	20:03	17.49
11-Nov-93	22:03	18.08	17-Nov-93	15:03	17.55	25-Nov-93	5:03	17.41	3-Dec-93	22:03	17.47
12-Nov-93	4:03	17.99	17-Nov-93	22:03	17.52	25-Nov-93	7:03	17.48	4-Dec-93	10:03	17.38
12-Nov-93	10:03	17.91	18-Nov-93	4:03	17.48	25-Nov-93	8:03	17.53	4-Dec-93	20:03	17.29
12-Nov-93	12:03	17.99	18-Nov-93	10:03	17.50	25-Nov-93	9:03	17.58	4-Dec-93	22:03	17.28
12-Nov-93	14:03	17.91	18-Nov-93	13:03	17.58	25-Nov-93	10:03	17.64	5-Dec-93	8:03	17.21
12-Nov-93	20:03	17.83	18-Nov-93	15:03	17.64	25-Nov-93	11:03	17.69	5-Dec-93	22:03	17.14
12-Nov-93	22:03	17.80	18-Nov-93	17:03	17.72	25-Nov-93	12:03	17.74	6-Dec-93	8:03	17.10
13-Nov-93	7:03	17.71	18-Nov-93	19:03	17.81	25-Nov-93	13:03	17.79	6-Dec-93	21:03	17.05
13-Nov-93	10:03	17.68	18-Nov-93	20:03	17.87	25-Nov-93	14:03	17.84	6-Dec-93	22:03	17.05
13-Nov-93	11:03	17.71	18-Nov-93	21:03	17.93	25-Nov-93	15:03	17.89	7-Dec-93	6:03	17.02
13-Nov-93	12:03	17.94	18-Nov-93	22:03	17.98	25-Nov-93	16:03	17.97	7-Dec-93	14:03	16.99
13-Nov-93	13:03	18.13	18-Nov-93	23:03	18.04	25-Nov-93	17:03	18.07	7-Dec-93	22:03	16.96
13-Nov-93	14:03	18.07	19-Nov-93	0:03	18.12	25-Nov-93	18:03	18.14	8-Dec-93	9:03	16.92
13-Nov-93	15:03	18.12	19-Nov-93	1:03	18.20	25-Nov-93	21:03	18.17	8-Dec-93	19:03	16.90
13-Nov-93	16:03	18.22	19-Nov-93	2:03	18.27	25-Nov-93	22:03	18.16	8-Dec-93	22:03	16.89
13-Nov-93	17:03	18.35	19-Nov-93	3:03	18.34	26-Nov-93	6:03	18.19	9-Dec-93	8:03	16.85
13-Nov-93	19:03	18.43	19-Nov-93	4:03	18.41	26-Nov-93	12:03	18.10	9-Dec-93	22:03	16.83
13-Nov-93	20:03	18.47	19-Nov-93	5:03	18.49	26-Nov-93	16:03	18.02	10-Dec-93	9:03	16.81
13-Nov-93	22:03	18.53	19-Nov-93	7:03	18.58	26-Nov-93	20:03	17.94	10-Dec-93	10:03	17.02
14-Nov-93	3:03	18.57	19-Nov-93	11:03	18.66	26-Nov-93	22:03	17.90	10-Dec-93	11:03	17.13
14-Nov-93	7:03	18.62	19-Nov-93	15:03	18.71	27-Nov-93	3:03	17.81	10-Dec-93	12:03	17.00
14-Nov-93	12:03	18.66	19-Nov-93	20:03	18.68	27-Nov-93	9:03	17.72	10-Dec-93	13:03	16.93
14-Nov-93	13:03	18.81	19-Nov-93	22:03	18.62	27-Nov-93	17:03	17.63	10-Dec-93	16:03	16.84
14-Nov-93	14:03	18.84	20-Nov-93	1:03	18.54	27-Nov-93	22:03	17.60	10-Dec-93	22:03	16.78
14-Nov-93	15:03	18.71	20-Nov-93	4:03	18.45	28-Nov-93	9:03	17.51	11-Dec-93	8:03	16.75
14-Nov-93	16:03	18.65	20-Nov-93	6:03	18.38	28-Nov-93	16:03	17.46	11-Dec-93	9:03	16.75
14-Nov-93	18:03	18.57	20-Nov-93	9:03	18.29	28-Nov-93	22:03	17.42	11-Dec-93	10:03	16.78
14-Nov-93	20:03	18.51	20-Nov-93	12:03	18.20	29-Nov-93	12:03	17.33	11-Dec-93	11:03	16.99
14-Nov-93	22:03	18.45	20-Nov-93	15:03	18.13	29-Nov-93	19:03	17.27	11-Dec-93	12:03	17.06
15-Nov-93	1:03	18.37	20-Nov-93	18:03	18.05	29-Nov-93	22:03	17.25	11-Dec-93	13:03	16.93
15-Nov-93	4:03	18.29	20-Nov-93	22:03	17.97	30-Nov-93	12:03	17.18	11-Dec-93	15:03	16.84
15-Nov-93	8:03	18.21	21-Nov-93	3:03	17.88	30-Nov-93	14:03	17.24	11-Dec-93	20:03	16.77
15-Nov-93	12:03	18.13	21-Nov-93	8:03	17.79	30-Nov-93	17:03	17.17	11-Dec-93	22:03	16.76
15-Nov-93	13:03	18.22	21-Nov-93	14:03	17.70	30-Nov-93	22:03	17.15	12-Dec-93	5:03	16.72
15-Nov-93	14:03	18.44	21-Nov-93	20:03	17.61	1-Dec-93	10:03	17.09	12-Dec-93	10:03	16.70
15-Nov-93	15:03	18.35	21-Nov-93	22:03	17.58	1-Dec-93	13:03	17.08	12-Dec-93	11:03	16.81
15-Nov-93	16:03	18.21	22-Nov-93	5:03	17.49	1-Dec-93	14:03	17.18	12-Dec-93	12:03	17.09
15-Nov-93	17:03	18.15	22-Nov-93	13:03	17.41	1-Dec-93	16:03	17.11	12-Dec-93	13:03	17.21
15-Nov-93	19:03	18.07	22-Nov-93	22:03	17.32	1-Dec-93	22:03	17.09	12-Dec-93	14:03	17.03
15-Nov-93	22:03	18.00	23-Nov-93	11:03	17.23	2-Dec-93	5:03	17.10	12-Dec-93	15:03	16.94
16-Nov-93	3:03	17.92	23-Nov-93	17:03	17.19	2-Dec-93	10:03	17.18	12-Dec-93	17:03	16.86
16-Nov-93	8:03	17.84	23-Nov-93	21:03	17.22	2-Dec-93	14:03	17.25	12-Dec-93	21:03	16.78
16-Nov-93	13:03	17.77	23-Nov-93	22:03	17.24	2-Dec-93	16:03	17.33	12-Dec-93	22:03	16.76
16-Nov-93	14:03	17.82	24-Nov-93	0:03	17.29	2-Dec-93	17:03	17.39	13-Dec-93	6:03	16.70
16-Nov-93	15:03	17.88	24-Nov-93	1:03	17.34	2-Dec-93	19:03	17.48	13-Dec-93	11:03	16.68
16-Nov-93	16:03	17.79	24-Nov-93	4:03	17.43	2-Dec-93	22:03	17.52	13-Dec-93	12:03	16.85
16-Nov-93	19:03	17.72	24-Nov-93	16:03	17.41	3-Dec-93	7:03	17.55	13-Dec-93	13:03	17.13

dc-10			dc-10			dc-10			dc-10		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
13-Dec-93	14:03	17.16	24-Dec-93	7:06	17.35	5-Jan-94	9:06	16.52	21-Jan-94	8:06	15.98
13-Dec-93	15:03	16.99	24-Dec-93	9:06	17.34	6-Jan-94	0:06	16.47	21-Jan-94	9:06	15.97
13-Dec-93	16:03	16.90	24-Dec-93	12:06	17.34	6-Jan-94	8:06	16.47	21-Jan-94	23:06	15.94
13-Dec-93	18:03	16.82	24-Dec-93	14:06	17.40	6-Jan-94	20:06	16.45	22-Jan-94	9:06	15.92
13-Dec-93	22:03	16.74	24-Dec-93	15:06	17.46	7-Jan-94	9:06	16.41	22-Jan-94	23:06	15.87
14-Dec-93	5:03	16.68	24-Dec-93	18:06	17.55	8-Jan-94	1:06	16.39	23-Jan-94	9:06	15.84
14-Dec-93	12:03	16.65	25-Dec-93	2:06	17.59	8-Jan-94	9:06	16.38	24-Jan-94	1:06	15.79
14-Dec-93	13:03	16.81	25-Dec-93	9:06	17.59	8-Jan-94	17:06	16.34	24-Jan-94	9:06	15.76
14-Dec-93	14:03	17.00	25-Dec-93	15:06	17.54	9-Jan-94	8:06	16.30	24-Jan-94	22:06	15.73
14-Dec-93	15:03	16.92	25-Dec-93	21:06	17.46	9-Jan-94	9:06	16.30	25-Jan-94	8:06	15.70
14-Dec-93	16:03	16.82	26-Dec-93	4:06	17.38	10-Jan-94	2:06	16.27	25-Jan-94	9:06	15.70
14-Dec-93	18:03	16.74	26-Dec-93	9:06	17.33	10-Jan-94	9:06	16.28	25-Jan-94	17:06	15.77
14-Dec-93	22:03	16.68	26-Dec-93	20:06	17.24	10-Jan-94	11:06	16.29	26-Jan-94	4:06	15.86
15-Dec-93	4:03	16.64	27-Dec-93	7:06	17.15	10-Jan-94	12:06	16.38	26-Jan-94	9:06	15.90
15-Dec-93	13:03	16.64	27-Dec-93	9:06	17.14	10-Jan-94	15:06	16.29	26-Jan-94	21:06	15.99
15-Dec-93	14:03	16.82	27-Dec-93	19:06	17.11	10-Jan-94	21:06	16.25	27-Jan-94	4:06	16.06
15-Dec-93	15:03	16.94	28-Dec-93	3:06	17.08	11-Jan-94	8:06	16.23	27-Jan-94	8:06	16.14
15-Dec-93	16:03	16.85	28-Dec-93	9:06	17.05	11-Jan-94	9:06	16.22	27-Jan-94	9:06	16.17
15-Dec-93	19:03	16.81	28-Dec-93	13:06	17.08	11-Jan-94	11:06	16.22	27-Jan-94	11:06	16.23
15-Dec-93	22:03	16.83	28-Dec-93	18:06	17.04	11-Jan-94	12:06	16.31	27-Jan-94	12:06	16.28
16-Dec-93	2:03	16.92	29-Dec-93	9:06	17.01	11-Jan-94	13:06	16.41	27-Jan-94	13:06	16.35
16-Dec-93	5:03	17.00	29-Dec-93	12:06	16.99	11-Jan-94	15:06	16.32	27-Jan-94	18:06	16.43
16-Dec-93	8:03	17.08	29-Dec-93	14:06	17.03	11-Jan-94	19:06	16.26	28-Jan-94	3:06	16.48
16-Dec-93	11:03	17.16	29-Dec-93	18:06	16.99	12-Jan-94	9:06	16.20	28-Jan-94	9:06	16.55
16-Dec-93	14:03	17.22	30-Dec-93	7:06	16.97	12-Jan-94	12:06	16.20	28-Jan-94	12:06	16.61
16-Dec-93	17:03	17.27	30-Dec-93	9:06	16.96	12-Jan-94	13:06	16.33	28-Jan-94	13:06	16.65
16-Dec-93	22:03	17.31	30-Dec-93	12:06	16.96	12-Jan-94	14:06	16.38	28-Jan-94	14:06	16.72
17-Dec-93	2:03	17.37	30-Dec-93	13:06	16.99	12-Jan-94	16:06	16.29	28-Jan-94	16:06	16.79
17-Dec-93	4:03	17.45	30-Dec-93	14:06	17.11	12-Jan-94	20:06	16.23	28-Jan-94	19:06	16.88
17-Dec-93	6:03	17.54	30-Dec-93	15:06	17.05	13-Jan-94	3:06	16.20	28-Jan-94	21:06	16.95
17-Dec-93	22:03	17.51	30-Dec-93	18:06	16.98	13-Jan-94	9:06	16.19	29-Jan-94	0:06	17.03
18-Dec-93	6:03	17.47	30-Dec-93	23:06	16.94	13-Jan-94	13:06	16.19	29-Jan-94	4:06	17.12
18-Dec-93	18:03	17.38	31-Dec-93	6:06	16.92	13-Jan-94	14:06	16.31	29-Jan-94	9:06	17.19
18-Dec-93	22:03	17.35	31-Dec-93	9:06	16.91	13-Jan-94	18:06	16.23	29-Jan-94	16:06	17.27
19-Dec-93	13:03	17.33	31-Dec-93	13:06	16.89	14-Jan-94	0:06	16.20	30-Jan-94	9:06	17.28
19-Dec-93	22:03	17.26	31-Dec-93	14:06	16.97	14-Jan-94	9:06	16.19	30-Jan-94	21:06	17.19
20-Dec-93	9:06	17.19	31-Dec-93	15:06	17.05	15-Jan-94	7:06	16.17	31-Jan-94	5:06	17.13
20-Dec-93	19:06	17.12	31-Dec-93	16:06	16.98	15-Jan-94	9:06	16.18	31-Jan-94	9:06	17.11
21-Dec-93	3:06	17.14	31-Dec-93	19:06	16.91	15-Jan-94	14:06	16.18	31-Jan-94	22:06	17.03
21-Dec-93	7:06	17.22	1-Jan-94	3:06	16.86	15-Jan-94	20:06	16.16	1-Feb-94	9:06	16.97
21-Dec-93	9:06	17.25	1-Jan-94	9:06	16.84	16-Jan-94	9:06	16.15	1-Feb-94	21:06	16.91
22-Dec-93	9:06	17.23	2-Jan-94	1:06	16.79	17-Jan-94	9:06	16.16	2-Feb-94	9:06	16.86
22-Dec-93	18:06	17.24	2-Jan-94	9:06	16.77	17-Jan-94	22:06	16.14	2-Feb-94	21:06	16.80
22-Dec-93	21:06	17.31	2-Jan-94	18:06	16.75	18-Jan-94	9:06	16.10	3-Feb-94	9:06	16.75
23-Dec-93	0:06	17.38	3-Jan-94	4:06	16.70	18-Jan-94	23:06	16.08	4-Feb-94	2:06	16.67
23-Dec-93	3:06	17.46	3-Jan-94	9:06	16.69	19-Jan-94	9:06	16.07	4-Feb-94	9:06	16.64
23-Dec-93	9:06	17.45	3-Jan-94	22:06	16.65	20-Jan-94	0:06	16.05	4-Feb-94	19:06	16.60
23-Dec-93	16:06	17.48	4-Jan-94	9:06	16.62	20-Jan-94	9:06	16.03	5-Feb-94	3:06	16.57
23-Dec-93	22:06	17.44	4-Jan-94	23:06	16.57	20-Jan-94	21:06	16.00	5-Feb-94	9:06	16.55

dc-10			dc-10			dc-10			dc-10		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
6-Feb-94	1:06	16.48	23-Feb-94	19:06	15.54	5-Mar-94	9:06	16.04			
6-Feb-94	9:06	16.45	24-Feb-94	0:06	15.45	6-Mar-94	6:06	16.02			
6-Feb-94	18:06	16.42	24-Feb-94	9:06	15.36	6-Mar-94	9:06	16.00			
7-Feb-94	2:06	16.39	24-Feb-94	17:06	15.31	7-Mar-94	7:06	15.98			
7-Feb-94	9:06	16.37	25-Feb-94	5:06	15.24	7-Mar-94	9:06	15.97			
7-Feb-94	23:06	16.34	25-Feb-94	9:06	15.23	7-Mar-94	14:06	16.02			
8-Feb-94	9:06	16.32	25-Feb-94	21:06	15.18	7-Mar-94	19:06	16.06			
8-Feb-94	21:06	16.30	26-Feb-94	8:06	15.14	8-Mar-94	9:06	16.07			
9-Feb-94	9:06	16.27	26-Feb-94	9:06	15.14	8-Mar-94	17:06	16.16			
9-Feb-94	19:06	16.25	26-Feb-94	13:06	15.13	9-Mar-94	0:06	16.25			
10-Feb-94	7:06	16.22	26-Feb-94	15:06	15.22	9-Mar-94	7:06	16.34			
10-Feb-94	9:06	16.22	26-Feb-94	19:06	15.14	9-Mar-94	9:06	16.36			
10-Feb-94	12:06	16.21	27-Feb-94	1:06	15.11	9-Mar-94	15:06	16.44			
10-Feb-94	14:06	16.24	27-Feb-94	2:06	15.20	9-Mar-94	21:06	16.52			
10-Feb-94	20:06	16.21	27-Feb-94	4:06	15.27	10-Mar-94	6:06	16.60			
11-Feb-94	9:06	16.19	27-Feb-94	7:06	15.19	10-Mar-94	9:06	16.61			
11-Feb-94	12:06	16.19	27-Feb-94	9:06	15.17	10-Mar-94	13:06	16.65			
11-Feb-94	13:06	16.22	27-Feb-94	14:06	15.14	10-Mar-94	17:06	16.74			
11-Feb-94	14:06	16.29	27-Feb-94	16:06	15.21	11-Mar-94	1:06	16.81			
11-Feb-94	17:06	16.23	27-Feb-94	22:06	15.15	11-Mar-94	7:06	16.84			
12-Feb-94	3:06	16.21	28-Feb-94	1:06	15.13	11-Mar-94	9:06	16.84			
12-Feb-94	9:06	16.20	28-Feb-94	2:06	15.22	12-Mar-94	0:06	16.86			
12-Feb-94	13:06	16.18	28-Feb-94	3:06	15.51	12-Mar-94	5:06	16.94			
12-Feb-94	15:06	16.21	28-Feb-94	4:06	15.63	12-Mar-94	8:06	17.02			
12-Feb-94	19:06	16.18	28-Feb-94	6:06	15.60	12-Mar-94	9:06	17.05			
13-Feb-94	9:06	16.15	28-Feb-94	8:06	15.51	12-Mar-94	11:06	17.11			
14-Feb-94	5:06	16.13	28-Feb-94	9:06	15.48	12-Mar-94	12:06	17.16			
14-Feb-94	9:06	16.11	28-Feb-94	13:06	15.39	12-Mar-94	14:06	17.25			
15-Feb-94	2:06	16.09	28-Feb-94	15:06	15.41	12-Mar-94	19:06	17.33			
15-Feb-94	9:06	16.07	28-Feb-94	17:06	15.42	12-Mar-94	23:06	17.41			
16-Feb-94	1:06	16.02	28-Feb-94	19:06	15.38	13-Mar-94	3:06	17.50			
16-Feb-94	9:06	16.00	1-Mar-94	0:06	15.40	13-Mar-94	8:06	17.54			
17-Feb-94	0:06	15.98	1-Mar-94	2:06	15.43	13-Mar-94	9:06	17.54			
17-Feb-94	9:06	15.95	1-Mar-94	3:06	15.62	13-Mar-94	18:06	17.57			
17-Feb-94	16:06	15.93	1-Mar-94	4:06	15.81	14-Mar-94	6:06	17.52			
18-Feb-94	0:06	15.89	1-Mar-94	6:06	15.74						
18-Feb-94	9:06	15.86	1-Mar-94	9:06	15.68						
18-Feb-94	21:06	15.81	1-Mar-94	23:06	15.70						
19-Feb-94	9:06	15.76	2-Mar-94	3:06	15.74						
19-Feb-94	20:06	15.72	2-Mar-94	4:06	15.86						
20-Feb-94	9:06	15.67	2-Mar-94	6:06	15.85						
20-Feb-94	19:06	15.62	2-Mar-94	9:06	15.82						
21-Feb-94	9:06	15.56	3-Mar-94	9:06	15.84						
21-Feb-94	12:06	15.55	3-Mar-94	16:06	15.93						
21-Feb-94	14:06	15.61	3-Mar-94	22:06	16.00						
21-Feb-94	22:06	15.64	4-Mar-94	9:06	16.01						
22-Feb-94	9:06	15.61	4-Mar-94	13:06	16.04						
22-Feb-94	19:06	15.59	4-Mar-94	17:06	16.08						
23-Feb-94	9:06	15.57	5-Mar-94	0:06	16.06						

R-Well
elevation (feet)
18.00
17.00
16.00
15.00
14.00
6-Nov-93
13-Nov-93
20-Nov-93
27-Nov-93
4-Dec-93
11-Dec-93
18-Dec-93
25-Dec-93
1-Jan-94
8-Jan-94
15-Jan-94
22-Jan-94
29-Jan-94
5-Feb-94
12-Feb-94
19-Feb-94
26-Feb-94
5-Mar-94
12-Mar-94
19-Mar-94

R-Well			R-Well			R-Well			R-Well		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
12-Nov-93	9:00	16.53	19-Nov-93	21:00	17.25	02-Dec-93	22:00	16.38	14-Dec-93	15:00	16.16
12-Nov-93	10:00	16.53	19-Nov-93	22:00	17.23	03-Dec-93	6:00	16.40	14-Dec-93	16:00	16.10
12-Nov-93	11:00	16.53	20-Nov-93	1:00	17.20	03-Dec-93	21:00	16.38	14-Dec-93	17:00	16.04
12-Nov-93	12:00	16.80	20-Nov-93	4:00	17.13	03-Dec-93	22:00	16.37	14-Dec-93	19:00	15.97
12-Nov-93	13:00	16.73	20-Nov-93	8:00	17.04	04-Dec-93	7:00	16.32	14-Dec-93	22:00	15.90
12-Nov-93	14:00	16.66	20-Nov-93	12:00	16.95	04-Dec-93	13:00	16.29	15-Dec-93	5:00	15.82
12-Nov-93	17:00	16.58	20-Nov-93	17:00	16.86	04-Dec-93	19:00	16.24	15-Dec-93	12:00	15.78
12-Nov-93	22:00	16.51	20-Nov-93	22:00	16.78	04-Dec-93	22:00	16.23	15-Dec-93	13:00	15.79
13-Nov-93	8:00	16.46	21-Nov-93	5:00	16.69	05-Dec-93	6:00	16.19	15-Dec-93	14:00	15.90
13-Nov-93	10:00	16.46	21-Nov-93	14:00	16.60	05-Dec-93	15:00	16.16	15-Dec-93	15:00	16.08
13-Nov-93	11:00	16.51	21-Nov-93	22:00	16.51	05-Dec-93	22:00	16.13	15-Dec-93	17:00	16.06
13-Nov-93	12:00	16.85	22-Nov-93	7:00	16.42	06-Dec-93	12:00	16.07	15-Dec-93	21:00	15.99
13-Nov-93	13:00	17.19	22-Nov-93	17:00	16.33	06-Dec-93	22:00	16.03	15-Dec-93	22:00	15.99
13-Nov-93	14:00	17.08	22-Nov-93	22:00	16.29	07-Dec-93	6:00	15.99	16-Dec-93	3:00	16.02
13-Nov-93	15:00	16.95	23-Nov-93	6:00	16.23	07-Dec-93	16:00	15.95	16-Dec-93	9:00	16.09
13-Nov-93	17:00	17.04	23-Nov-93	20:00	16.14	07-Dec-93	22:00	15.93	16-Dec-93	14:00	16.16
13-Nov-93	20:00	17.07	23-Nov-93	22:00	16.15	08-Dec-93	6:00	15.90	16-Dec-93	15:00	16.21
13-Nov-93	22:00	17.12	24-Nov-93	3:00	16.24	08-Dec-93	20:00	15.86	16-Dec-93	17:00	16.24
14-Nov-93	1:00	17.14	24-Nov-93	7:00	16.28	08-Dec-93	22:00	15.85	16-Dec-93	22:00	16.24
14-Nov-93	11:00	17.22	24-Nov-93	22:00	16.24	09-Dec-93	9:00	15.83	17-Dec-93	2:00	16.28
14-Nov-93	12:00	17.32	25-Nov-93	5:00	16.25	09-Dec-93	11:00	15.89	17-Dec-93	5:00	16.36
14-Nov-93	13:00	17.76	25-Nov-93	8:00	16.32	09-Dec-93	15:00	15.85	17-Dec-93	8:00	16.39
14-Nov-93	14:00	17.88	25-Nov-93	10:00	16.39	09-Dec-93	22:00	15.81	17-Dec-93	22:00	16.40
14-Nov-93	15:00	17.81	25-Nov-93	12:00	16.47	10-Dec-93	8:00	15.77	18-Dec-93	9:00	16.38
14-Nov-93	16:00	17.48	25-Nov-93	15:00	16.55	10-Dec-93	9:00	15.77	18-Dec-93	22:00	16.32
14-Nov-93	17:00	17.37	25-Nov-93	16:00	16.58	10-Dec-93	10:00	15.90	19-Dec-93	11:00	16.30
14-Nov-93	19:00	17.29	25-Nov-93	17:00	16.65	10-Dec-93	11:00	16.11	19-Dec-93	18:00	16.25
14-Nov-93	22:00	17.21	25-Nov-93	20:00	16.73	10-Dec-93	12:00	16.13	19-Dec-93	22:00	16.23
15-Nov-93	1:00	17.15	25-Nov-93	22:00	16.75	10-Dec-93	13:00	16.07	20-Dec-93	7:00	16.16
15-Nov-93	3:00	17.14	26-Nov-93	5:00	16.83	10-Dec-93	15:00	16.98	20-Dec-93	9:21	16.17
15-Nov-93	7:00	17.08	26-Nov-93	15:00	16.81	10-Dec-93	19:00	15.89	20-Dec-93	18:21	16.13
15-Nov-93	12:00	16.99	26-Nov-93	21:00	16.75	10-Dec-93	22:00	15.85	21-Dec-93	6:21	16.06
15-Nov-93	13:00	17.16	26-Nov-93	22:00	16.79	11-Dec-93	4:00	15.79	21-Dec-93	9:21	16.17
15-Nov-93	14:00	17.57	27-Nov-93	5:00	16.64	11-Dec-93	10:00	15.78	22-Dec-93	8:21	16.06
15-Nov-93	15:00	17.55	27-Nov-93	10:00	16.58	11-Dec-93	11:00	15.91	22-Dec-93	9:21	16.14
15-Nov-93	16:00	17.27	27-Nov-93	18:00	16.54	11-Dec-93	12:00	16.08	22-Dec-93	18:21	16.16
15-Nov-93	17:00	17.15	27-Nov-93	22:00	16.52	11-Dec-93	14:00	16.03	23-Dec-93	0:21	16.16
15-Nov-93	18:00	17.09	28-Nov-93	7:00	16.47	11-Dec-93	17:00	15.94	23-Dec-93	4:21	16.26
15-Nov-93	20:00	17.01	28-Nov-93	11:00	16.43	11-Dec-93	22:00	15.88	23-Dec-93	9:21	16.32
15-Nov-93	22:00	16.96	28-Nov-93	13:00	16.51	12-Dec-93	6:00	15.79	23-Dec-93	23:21	16.28
16-Nov-93	4:00	16.87	28-Nov-93	15:00	16.43	12-Dec-93	10:00	15.77	24-Dec-93	5:21	16.26
16-Nov-93	10:00	16.78	28-Nov-93	22:00	16.38	12-Dec-93	11:00	15.81	24-Dec-93	9:21	16.25
16-Nov-93	13:00	16.75	29-Nov-93	6:00	16.33	12-Dec-93	12:00	16.04	24-Dec-93	13:21	16.28
16-Nov-93	14:00	16.87	29-Nov-93	12:00	16.30	12-Dec-93	13:00	16.29	24-Dec-93	18:21	16.37
16-Nov-93	15:00	17.03	29-Nov-93	13:00	16.36	12-Dec-93	14:00	16.25	25-Dec-93	0:21	16.36
16-Nov-93	16:00	16.94	29-Nov-93	18:00	16.29	12-Dec-93	15:00	16.16	25-Dec-93	9:21	16.41
16-Nov-93	17:00	16.85	29-Nov-93	22:00	16.26	12-Dec-93	16:00	16.10	25-Dec-93	15:21	16.39
16-Nov-93	19:00	16.76	30-Nov-93	10:00	16.20	12-Dec-93	18:00	16.02	26-Dec-93	3:21	16.26
16-Nov-93	22:00	16.71	30-Nov-93	12:00	16.19	12-Dec-93	22:00	15.93	26-Dec-93	9:21	16.25
17-Nov-93	7:00	16.62	30-Nov-93	13:00	16.24	13-Dec-93	5:00	15.86	26-Dec-93	20:21	16.16
17-Nov-93	14:00	16.57	30-Nov-93	14:00	16.33	13-Dec-93	10:00	15.80	27-Dec-93	5:21	16.06
17-Nov-93	16:00	16.62	30-Nov-93	17:00	16.24	13-Dec-93	12:00	15.87	27-Dec-93	9:21	16.10
17-Nov-93	19:00	16.54	30-Nov-93	21:00	16.19	13-Dec-93	13:00	16.15	27-Dec-93	17:21	16.07
17-Nov-93	22:00	16.52	30-Nov-93	22:00	16.19	13-Dec-93	14:00	16.36	28-Dec-93	1:21	15.96
18-Nov-93	14:00	16.53	01-Dec-93	11:00	16.11	13-Dec-93	15:00	16.26	28-Dec-93	9:21	16.02
18-Nov-93	16:00	16.62	01-Dec-93	13:00	16.10	13-Dec-93	16:00	16.16	28-Dec-93	11:21	16.02
18-Nov-93	20:00	16.69	01-Dec-93	14:00	16.20	13-Dec-93	17:00	16.10	28-Dec-93	12:21	16.10
18-Nov-93	22:00	16.77	01-Dec-93	16:00	16.29	13-Dec-93	19:00	16.02	28-Dec-93	15:21	16.08
19-Nov-93	0:00	16.85	01-Dec-93	17:00	16.20	13-Dec-93	22:00	15.95	28-Dec-93	20:21	15.96
19-Nov-93	1:00	16.91	01-Dec-93	22:00	16.12	14-Dec-93	2:00	15.90	29-Dec-93	3:21	15.96
19-Nov-93	3:00	17.00	02-Dec-93	9:00	16.14	14-Dec-93	10:00	15.81	29-Dec-93	9:21	15.96
19-Nov-93	5:00	17.09	02-Dec-93	14:00	16.21	14-Dec-93	12:00	15.79	29-Dec-93	12:21	15.98
19-Nov-93	8:00	17.17	02-Dec-93	15:00	16.28	14-Dec-93	13:00	15.87	29-Dec-93	14:21	16.07
19-Nov-93	14:00	17.26	02-Dec-93	19:00	16.36	14-Dec-93	14:00	16.08	29-Dec-93	17:21	16.01

R-Well			R-Well			R-Well			R-Well		
date	time	elevation	date	time	elevation	date	time	elevation	date	time	elevation
30-Dec-93	8:21	15.96	15-Jan-94	9:21	15.22	7-Feb-94	0:21	15.26	27-Feb-94	16:21	14.36
30-Dec-93	9:21	15.96	15-Jan-94	20:21	15.18	7-Feb-94	9:21	15.31	27-Feb-94	23:21	14.36
30-Dec-93	12:21	15.95	16-Jan-94	9:21	15.17	7-Feb-94	20:21	15.28	28-Feb-94	1:21	14.26
30-Dec-93	13:21	16.03	17-Jan-94	9:21	15.15	8-Feb-94	6:21	15.26	28-Feb-94	2:21	14.36
30-Dec-93	14:21	16.15	18-Jan-94	1:21	15.06	8-Feb-94	9:21	15.25	28-Feb-94	3:21	14.46
30-Dec-93	17:21	16.07	18-Jan-94	9:21	15.10	8-Feb-94	13:21	15.30	28-Feb-94	4:21	14.46
30-Dec-93	22:21	15.96	18-Jan-94	23:21	15.06	8-Feb-94	22:21	15.16	28-Feb-94	8:21	14.56
31-Dec-93	8:21	15.86	19-Jan-94	9:21	15.06	9-Feb-94	6:21	15.16	28-Feb-94	9:21	14.67
31-Dec-93	9:21	15.93	19-Jan-94	17:21	15.04	9-Feb-94	9:21	15.21	28-Feb-94	14:21	14.66
31-Dec-93	13:21	15.93	20-Jan-94	5:21	14.98	9-Feb-94	12:21	15.24	28-Feb-94	17:21	14.72
31-Dec-93	14:21	16.04	20-Jan-94	9:21	14.97	9-Feb-94	19:21	15.16	1-Mar-94	2:21	14.66
31-Dec-93	15:21	16.12	20-Jan-94	16:21	14.95	10-Feb-94	6:21	15.16	1-Mar-94	3:21	14.76
31-Dec-93	18:21	16.03	21-Jan-94	3:21	14.86	10-Feb-94	9:21	15.19	1-Mar-94	4:21	14.86
1-Jan-94	0:21	15.86	21-Jan-94	9:21	14.90	10-Feb-94	12:21	15.19	1-Mar-94	8:21	14.86
1-Jan-94	9:21	15.89	22-Jan-94	6:21	14.76	10-Feb-94	14:21	15.24	1-Mar-94	9:21	14.99
1-Jan-94	14:21	15.87	22-Jan-94	9:21	14.82	10-Feb-94	21:21	15.18	2-Mar-94	2:21	14.96
1-Jan-94	16:21	15.91	22-Jan-94	20:21	14.76	11-Feb-94	9:21	15.18	2-Mar-94	4:21	15.06
1-Jan-94	20:21	15.76	23-Jan-94	9:21	14.73	11-Feb-94	13:21	15.21	2-Mar-94	7:21	15.16
2-Jan-94	9:21	15.82	23-Jan-94	19:21	14.88	11-Feb-94	15:21	15.28	2-Mar-94	9:21	15.16
2-Jan-94	21:21	15.76	24-Jan-94	6:21	14.68	12-Feb-94	1:21	15.18	2-Mar-94	18:21	15.12
3-Jan-94	9:21	15.72	24-Jan-94	9:21	14.65	12-Feb-94	4:21	15.18	3-Mar-94	4:21	15.06
3-Jan-94	18:21	15.70	24-Jan-94	18:21	14.82	12-Feb-94	9:21	15.22	3-Mar-94	7:21	15.16
4-Jan-94	9:21	15.65	25-Jan-94	9:21	14.60	12-Feb-94	13:21	15.21	3-Mar-94	9:21	15.17
4-Jan-94	22:21	15.56	25-Jan-94	17:21	14.82	12-Feb-94	15:21	15.26	3-Mar-94	15:21	15.19
5-Jan-94	8:21	15.46	26-Jan-94	6:21	14.66	13-Feb-94	1:21	15.16	4-Mar-94	1:21	15.16
5-Jan-94	9:21	15.54	26-Jan-94	9:21	14.73	13-Feb-94	9:21	15.23	4-Mar-94	9:21	15.23
5-Jan-94	21:21	15.46	26-Jan-94	17:21	14.82	13-Feb-94	23:21	15.16	4-Mar-94	14:21	15.25
6-Jan-94	8:21	15.46	27-Jan-94	1:21	14.86	14-Feb-94	9:21	15.16	5-Mar-94	7:21	15.16
6-Jan-94	9:21	15.47	27-Jan-94	8:21	14.86	14-Feb-94	23:21	15.06	6-Mar-94	9:21	15.22
6-Jan-94	17:21	15.45	27-Jan-94	9:21	14.97	15-Feb-94	9:21	15.10	6-Mar-94	2:21	15.16
7-Jan-94	1:21	15.36	27-Jan-94	12:21	15.04	15-Feb-94	22:21	15.06	6-Mar-94	9:21	15.14
7-Jan-94	9:21	15.41	27-Jan-94	14:21	15.13	16-Feb-94	9:21	15.03	6-Mar-94	20:21	15.06
8-Jan-94	0:21	15.36	27-Jan-94	19:21	15.18	16-Feb-94	19:21	14.96	7-Mar-94	7:21	15.06
8-Jan-94	9:21	15.34	28-Jan-94	4:21	15.28	17-Feb-94	7:21	14.96	7-Mar-94	9:21	15.08
8-Jan-94	17:21	15.32	28-Jan-94	9:21	15.36	17-Feb-94	9:21	14.96	7-Mar-94	15:21	15.08
9-Jan-94	2:21	15.28	28-Jan-94	13:21	15.43	17-Feb-94	18:21	14.94	8-Mar-94	9:21	15.08
9-Jan-94	9:21	15.27	28-Jan-94	18:21	15.51	18-Feb-94	5:21	14.86	8-Mar-94	21:21	15.16
9-Jan-94	13:21	15.30	28-Jan-94	21:21	15.56	18-Feb-94	9:21	14.87	9-Mar-94	3:21	15.16
9-Jan-94	19:21	15.26	29-Jan-94	1:21	15.66	18-Feb-94	19:21	14.76	9-Mar-94	9:21	15.26
10-Jan-94	9:21	15.23	29-Jan-94	6:21	15.76	19-Feb-94	3:21	14.76	9-Mar-94	18:21	15.33
10-Jan-94	11:21	15.27	29-Jan-94	9:21	15.83	19-Feb-94	9:21	14.76	10-Mar-94	4:21	15.36
10-Jan-94	13:21	15.36	29-Jan-94	14:21	15.91	19-Feb-94	15:21	14.74	10-Mar-94	9:21	15.43
10-Jan-94	20:21	15.26	29-Jan-94	18:21	15.97	20-Feb-94	3:21	14.86	10-Mar-94	14:21	15.47
11-Jan-94	6:21	15.16	30-Jan-94	1:21	15.96	20-Feb-94	9:21	14.85	10-Mar-94	18:21	15.52
11-Jan-94	9:21	15.22	30-Jan-94	7:21	16.06	20-Feb-94	18:21	14.56	11-Mar-94	5:21	15.56
11-Jan-94	11:21	15.22	30-Jan-94	9:21	16.06	21-Feb-94	5:21	14.56	11-Mar-94	9:21	15.63
11-Jan-94	12:21	15.28	31-Jan-94	8:21	16.06	21-Feb-94	9:21	14.54	11-Mar-94	16:21	15.67
11-Jan-94	13:21	15.36	31-Jan-94	9:21	16.05	21-Feb-94	23:21	14.46	11-Mar-94	23:21	15.66
11-Jan-94	15:21	15.39	31-Jan-94	18:21	16.02	22-Feb-94	9:21	14.49	12-Mar-94	6:21	15.76
11-Jan-94	23:21	15.26	1-Feb-94	3:21	15.96	22-Feb-94	19:21	14.46	12-Mar-94	9:21	15.82
12-Jan-94	9:21	15.24	1-Feb-94	9:21	15.95	23-Feb-94	7:21	14.36	12-Mar-94	13:21	15.90
12-Jan-94	12:21	15.24	2-Feb-94	2:21	15.86	23-Feb-94	9:21	14.43	12-Mar-94	17:21	15.99
12-Jan-94	13:21	15.31	2-Feb-94	9:21	15.84	23-Feb-94	20:21	14.36	12-Mar-94	21:21	16.06
12-Jan-94	15:21	15.39	2-Feb-94	18:21	15.80	24-Feb-94	9:21	14.35	13-Mar-94	1:21	16.16
13-Jan-94	2:21	15.26	3-Feb-94	2:21	15.76	24-Feb-94	23:21	14.26	13-Mar-94	5:21	16.16
13-Jan-94	9:21	15.26	3-Feb-94	9:21	15.73	25-Feb-94	9:21	14.25	13-Mar-94	9:21	16.26
13-Jan-94	13:21	15.27	3-Feb-94	19:21	15.66	25-Feb-94	21:21	14.18	13-Mar-94	18:21	16.36
13-Jan-94	14:21	15.33	4-Feb-94	6:21	15.56	26-Feb-94	9:21	14.21	14-Mar-94	3:21	16.36
13-Jan-94	16:21	15.37	4-Feb-94	9:21	15.61	26-Feb-94	13:21	14.22			
14-Jan-94	0:21	15.26	4-Feb-94	19:21	15.56	26-Feb-94	16:21	14.27			
14-Jan-94	9:21	15.26	5-Feb-94	9:21	15.50	27-Feb-94	0:21	14.18			
14-Jan-94	14:21	15.27	5-Feb-94	17:21	15.48	27-Feb-94	6:21	14.26			
14-Jan-94	16:21	15.31	6-Feb-94	1:21	15.36	27-Feb-94	9:21	14.30			
15-Jan-94	1:21	15.16	6-Feb-94	9:21	15.41	27-Feb-94	13:21	14.29			