



To: Radiation Physics September 1, 2002  
From: Keith Jobe, NLCTA Safety Officer  
Subject: Event Monitors at NLCTA May 17 2002 through July 15 2002  
Cc: OHP (Frey, Tran)

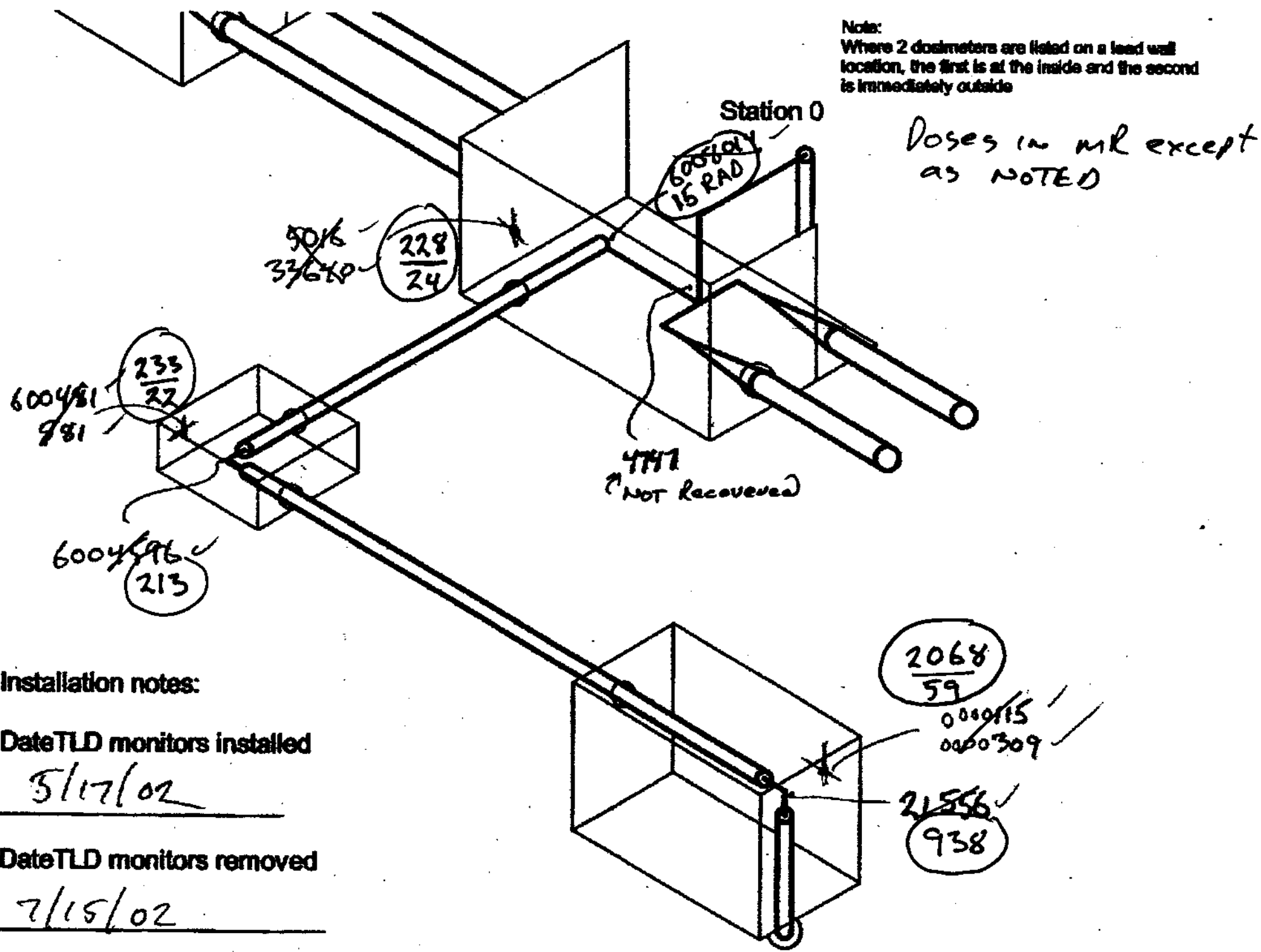
The following graphical maps indicate the locations of the Event Monitors installed at NLCTA over the period May 17 2002 through July 15 2002.

This set of data has no surprises.

- The largest dose was 15 Rad (contact) on the flower pedal mode converter immediately downstream of the Station 0 SLED power combiner. This device was the largest source point on the prior study, was expected to be noisy, and continues to be a radioemitter.
- The integrated dose for the lead box for station 0 SLED head was 228 mR inside and 24 mR outside.
- The next largest term is the flower pedal mode converter / right hand bend for station 0 (bend 2). Dosimetry reported a contact dose of 1 Rad (contact) on the device with 2 Rad on the inside wall of the lead shielding box. One would usually expect the device monitor to read a higher value than the box, but intrinsic device shielding probably accounts for the difference in reading.
- The recorded dose outside the station 0 bend 2 was 59 mR – the highest event monitor reading outside the shielding boxes.
- Typical readings for event monitors placed outside the lead shielding boxes is around 20 mR for the reporting interval.

All of the data quoted were based on the average of the corrected E1 through E4 readings provided by dosimetry group of ES&H. The table of values and their mean is attached.

Note:  
Where 2 dosimeters are listed on a lead wall location, the first is at the inside and the second is immediately outside



Installation notes:

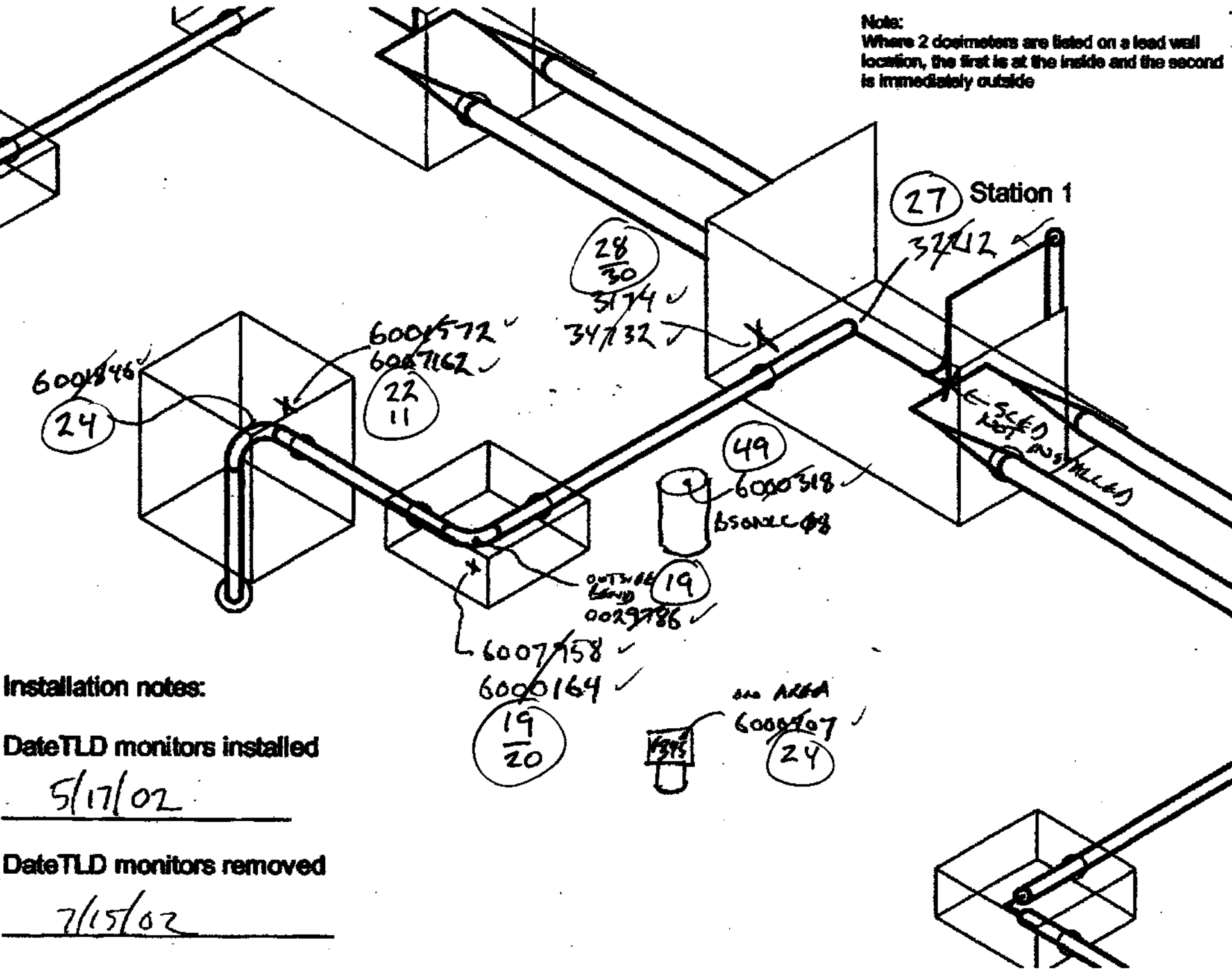
Date TLD monitors installed

5/17/02

Date TLD monitors removed

7/15/02

Note:  
Where 2 dosimeters are listed on a lead wall location, the first is at the inside and the second is immediately outside



Installation notes:  
Date TLD monitors installed  
5/17/02  
Date TLD monitors removed  
7/15/02

28  
30  
5174 ✓  
34732 ✓

27 Station 1  
34712 ✓

6004846 ✓  
24

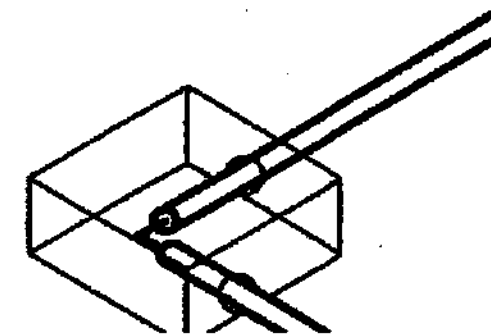
6005712 ✓  
6007162 ✓  
22  
11

49  
6000318 ✓  
650NLL 08

OUTSIDE  
650NLL 08  
19  
0029786 ✓

6007158 ✓  
6000164 ✓  
19  
20

SEE AREA  
6000107 ✓  
24



Installation notes:

Date TLD monitors installed

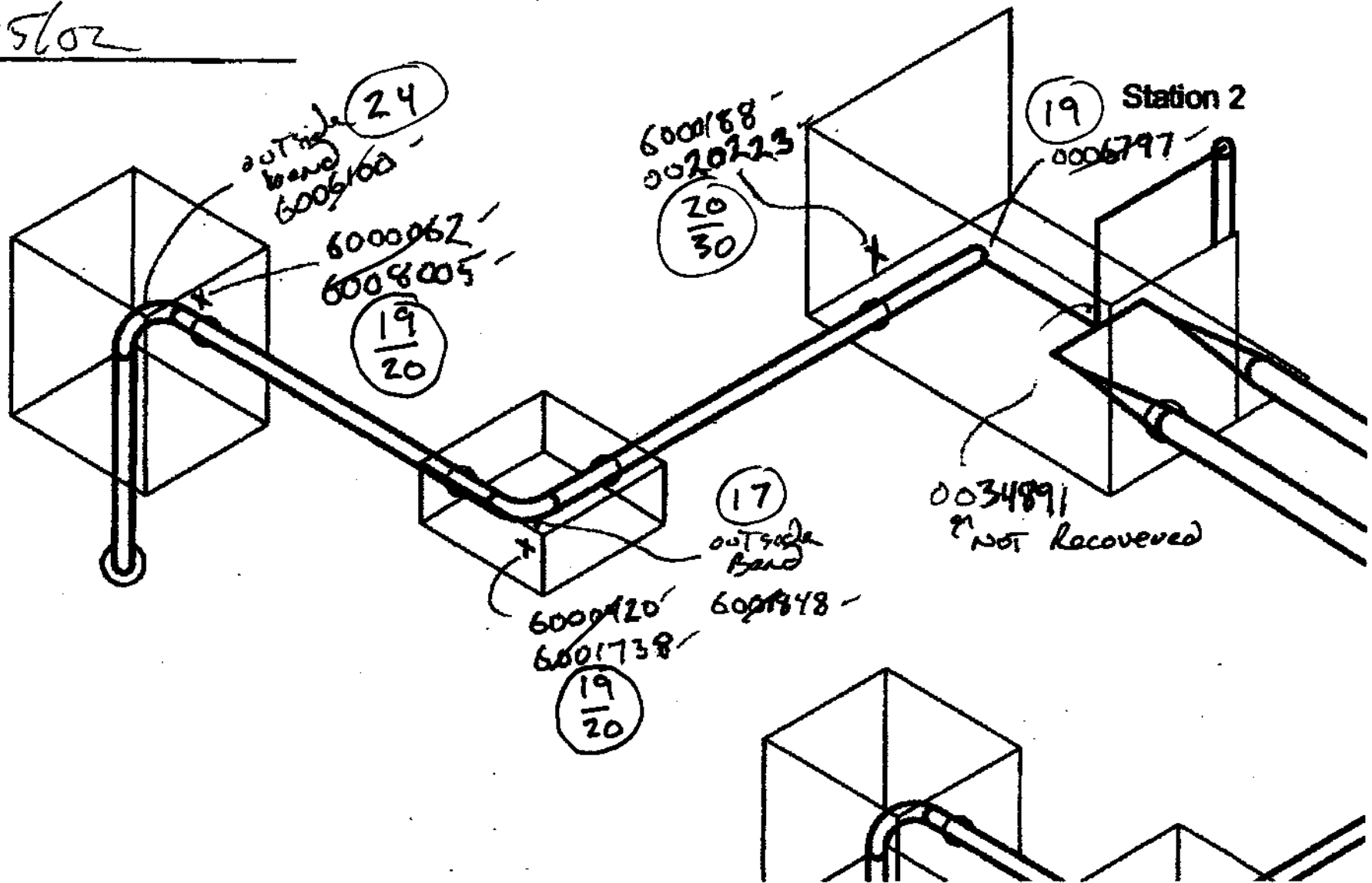
5/12/02

Date TLD monitors removed

2/15/02

Note:  
Where 2 dosimeters are listed on a lead wall location, the first is at the inside and the second is immediately outside

Doses in MR



Badgeld	E1	E2	E3	E4	mean
<del>115</del>	1923.8	1891.9	2948.7	1508.5	2068
<del>300</del>	71.9	63.2	58.4	42.8	59
<del>581</del>	29	27.6	16.5	15.3	22
<del>3174</del>	41.6	45.7	12.2	11.6	28
3882	434.4	402.9	362.5	396.4	399
<del>5010</del>	218.1	211	323.6	160.9	228
5861	26.5	12.2	1.8	1.9	11
<del>6797</del>	29	21.6	16.2	8.1	19
19745	25.3	24.5	7.7	7.9	16
20223	61.6	31.4	11.9	13.1	30
<del>21556</del>	890.4	737.1	1277.3	845.2	938
<del>29786</del>	34.5	21	10.7	11	19
<del>32212</del>	44.6	27.3	20.5	15.1	27
33563	41.1	19.3	11.5	16.3	22
<del>33640</del>	34.7	28.8	15.8	18.4	24
<del>34732</del>	62.6	29.6	12.5	15.3	30
<del>6000062</del>	36.8	19	11	10.5	19
<del>6000164</del>	39.3	19.8	11.1	11.6	20
<del>6000188</del>	31.9	25.6	11.8	11.6	20
<del>6000310</del>	63.6	49	59.2	24	49
<del>6000407</del>	40.3	28.4	13.6	13.7	24
<del>6000420</del>	28.9	25.6	10.7	10.9	19
<del>6000481</del>	180.1	191	355.4	166.5	223
6000604	29.7	16.6	10.3	10.7	17
6000979	31.6	21.6	10.8	11.2	19
6001479	66.6	37	11.1	11.6	32
<del>6001572</del>	40.7	24.1	10.6	11.3	22
6001634	45.6	21.8	10.8	10.9	22
6001640	54.6	19.5	14.2	11	25
<del>6001788</del>	59.7	35.8	11.3	11.6	30
6001781	48.8	30.6	10.8	11	25
<del>6001846</del>	45.7	28.5	10.2	11.1	24
<del>6001848</del>	35.9	13.1	9.3	10.6	17
6003081	450.5	422	377.1	413	416
6003146	420.4	379	383.6	395.5	395
6003265	29.8	22.3	11.9	33.7	24
<del>6004396</del>	260.2	124.1	272.5	196.5	213
6005449	409.6	424.8	364.7	408.1	402
6005462	400.4	411.2	395.8	410.8	405
6005484	409.5	412.2	375.6	397.6	399
6005516	397.6	414	381.4	394.4	397
<del>6006100</del>	45.7	27.1	11.6	10.6	24
6006366	440.5	439.9	385.8	391.3	414
<del>6007162</del>	14.8	12.9	8.5	8.2	11
6007498	410.2	432.4	371	394.1	402
6007734	427.1	441.2	394.4	404.4	417
<del>6007958</del>	27.8	26	10.6	11.1	19
<del>6008005</del>	29.7	25.5	12.4	11.2	20
<del>6008014</del>	6516.8	11660.8	28922.5	14447.9	15387