

SLAC-CN--335

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**SINGLE PASS COLLIDER NOTE CN-335**

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The attached sheets list the formal names and common names for all devices in the final focus system. The formal names are intended to follow a pattern that is compatible with the guidelines of CN-273 and with the patterns that have been established in other parts of the SLC.

**A. COMPONENT STATION NUMBERS**

The first column lists the approximate positions of the devices in the final focus system as measured along the beam path. The coordinate system is an extension of the "station-100" system that follows the beam and the units are feet. The positions listed here are for identification purposes only, and should not be used for other engineering purposes.

**B. MECHANICAL ENGINEERING NAME**

This column lists device names that have been used mainly by the mechanical engineering group and appear on many existing drawings. MASKS 1, 2, and 3 are passive devices intended primarily to mask synchrotron radiation. Collimator/scrapers CO, C1X, and C1Y retain their widely recognized names. All other collimators have been assigned names of the form PC- followed by the number of the next large magnet downstream. In a few cases, a collimator follows immediately downstream of a quadrupole; in these cases, the collimator is given the number of the next quadrupole downstream +.5.

**C. FORMAL NAME**

The formal names become the control system data base names. The pattern is as follows:

BEND:FF01,1150

Device type designator:

The first four characters conform to established control system nomenclature, except for the following special devices:

BTEL: Beam timing electrode.

DUMP: Beam dump.

HBSM: Hard beamstrahlung monitor.

LASR: Laser for Compton polarimeter.

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**LDET:** Laser detector.

**LEVL:** Liquid level sensor.

**LMON:** Luminosity monitor.

**MSAM:** "Mini-SAM" luminosity monitor.

**STPR:** Stopper (tune-up dump).

**VBSM:** Visible beamstrahlung monitor.

**WIRE:** Wire scanner monitor.

**XWAG:** Horizontal dither coil.

**YWAG:** Vertical dither coil.

**Microprocessor designator:**

**CA03:** South arc.

**CA13:** North arc.

**FF01:** South final focus.

**FF11:** North final focus.

**FB69:** Feedback micro for interaction point steering.

**FB73:** Beamstrahlung monitors.

**Unit number:**

**First (most significant) digit:**

**1:** Eta match and bend section.

**2:** First telescope.

**3:** Chromatic correction section.

**4:** Final bends, including special instrumentation for beamstrahlung and polarization monitoring.

**5:** Final telescope.

**6:** Section inside detector.

**7:** Temporary commissioning apparatus.

**8:** Extraction septa and energy-measuring spectrometer.

**9:** Dump line.

#### Second Digit:

Indicates the subsection, given by the sequence number of the nearest bend or quad (not counting the correctors), numbered in the direction the beam goes.

#### Third Digit:

Sequence number of elements within each subsection with the major element assigned the value 5. Thus, all major optical elements (bends and quads) have 5 as the third digit. Devices immediately preceding a quad have a lower value, and so forth.

#### Fourth Digit:

Usually zero; used when the number of devices in a subsection is greater than ten, or to designate two or more separate parts of a single logical device (such as the separate sections of each extraction septum). It is also used to differentiate between identical devices in the north and south final focus systems that are controlled by the same microprocessor and would otherwise have identical unit numbers. In this case, the unit number of the device on the north side is incremented by one.

Note that unit numbers increase in the direction toward the interaction point, and that two devices occupying the same longitudinal position along the beam line will have the same unit number.

The two beam position monitors nearest the interaction point on each side are assigned unit numbers that deviate from this pattern. Specifically, each of these BPMs is assigned two unit numbers, one for the upstream end which is used for measuring the incoming beam, and the other for the downstream end, used for measuring the outgoing beam (separate electronics are used for the two ends of each of these). The unit numbers were chosen to increase for both beams as they traverse the IP. In addition, the unit numbers for the electron ends were increased by +10,000 to avoid mixing the two beams in the existing display software. Thus, the positron beam sees BPMs 5450, 5650, (IP), 6650, 6850, while the electron beam sees 15450, 15650, (IP), 16650, 16850.

#### D. COMMON NAME

These names are similar to the M.E. names in most cases, except that the suffix N or S is used to designate the north or south sides, and quadrupole names include an F or D following the Q to indicate focusing or defocusing in the horizontal plane. Vacuum devices have been given common names that are contractions of the formal names.

Thanks to Dave Huddleston, John Silva, and Kelly Speaks for checking these lists and providing innumerable comments.

8 AUGUST 1986

FINAL FOCUS NOMENCLATURE

*****		SOUTH FF		*****	
STATION	MECH. ENG. NAME	FORMAL NAME	COMMON NAME		
142+54	' 53BPM26 '	BPMS:CA03,2403	' BPM26 S '		
142+55	' 53CQ6/26 '	QUAD:FF01,1120	' CQ6 S '		
142+56	' 53SQ6/26 '	QUAD:FF01,1130	' SQ6 S '		
142+60	' 53B6 '	BEND:FF01,1150	' B6 S '		
142+60	' B6 TRIM '	BTRM:FF01,1150	' B6 TRM S '		
142+64	' VAC GAUGE '	VACG:FF01,1210	' VACG1210S '		
142+64	' VAC SENSR '	VACS:FF01,1210	' VACS1210S '		
142+65	' 53A25Y '	YCOR:FF01,1240	' A25Y S '		
142+66	' 53Q25 '	QUAS:FF01,1250	' QF25 S '		
142+67	' 53A25X '	XCOR:FF01,1260	' A25X S '		
142+68	' 53I(T)24A '	TORO:CA03,2420	' I24A S '		MPS
142+69	' 53I(T)24B '	TORO:FF01,1275	' I24B S '		MPS
142+70	' 53PC-24 '	COLL:FF01,1320	' PC-24 S '		
142+72	' 53Q24 '	QUAS:FF01,1350	' QD24 S '		
142+74	' 53GV '	VACV:FF01,1380	' GV1380S '		
142+75	' 53TD23 '	STPR:FF01,1400	' TD23 S '		
142+75	' 53IONC '	IONC:FF01,1400	' IONC1400S '		
142+76	' 53P '	VACP:FF01,1400	' VP1400S '		
142+77	' 53A23X '	XCOR:FF01,1440	' A23X S '		
142+78	' 53Q23 '	QUAS:FF01,1450	' QF23 S '		
142+79	' 53A23Y '	YCOR:FF01,1460	' A23Y S '		
142+80	' 53CQ5/23 '	QUAD:FF01,1520	' CQ5 S '		
142+81	' 53SQ5/23 '	QUAD:FF01,1530	' SQ5 S '		
142+82	' 53I(T)23 '	TORO:FF01,1540	' I23 S '		MPS
142+84	' 53B5 '	BEND:FF01,1550	' B5 S '		
142+84	' B5 TRIM '	BTRM:FF01,1550	' B5 TRM S '		
142+86	' VAC GAUGE '	VACG:FF01,1610	' VACG1610S '		
142+86	' VAC SENSR '	VACS:FF01,1610	' VACS1610S '		
142+87	' 53GV '	VACV:FF01,1620	' GV1620S '		
142+88	' 53COX '	COLL:FF01,1640	' CO S '		
142+88	' 53IONC '	IONC:FF01,1640	' IONC-CO S '		
142+90	' 53Q22 '	QUAS:FF01,1650	' QF22 S '		
142+92	' 53BPM22 '	BPMS:FF01,1660	' BPM22 S '		
142+93	' 53P '	VACP:FF01,1700	' VP1700S '		
142+94	' VAC GAUGE '	VACG:FF01,1710	' VACG1710S '		
142+94	' VAC SENSR '	VACS:FF01,1710	' VACS1710S '		
142+95	' 53PC-21 '	COLL:FF01,1720	' PC-21 S '		
142+97	' 53Q21 '	QUAS:FF01,1750	' QD21 S '		

143+03	53Q20	QUAS:FF01,1850	QF20 S
143+04	53BPM20	BPMS:FF01,1860	BPM20 S
143+07	C/L S15 ALCOVE		
143+09	53B4	BEND:FF01,1950	B4 S
143+09	B4 TRIM	BTRM:FF01,1950	B4 TRM S
143+13	53PC-19	COLL:FF01,1970	PC-19 S
143+17	53Q19	QUAD:FF01,2150	QF19 S
143+18	53BPM19	BPMS:FF01,2160	BPM19 S
143+20	53A19X	XCOR:FF01,2170	A19X S
143+21	53A19Y	YCOR:FF01,2180	A19Y S
143+22	53P	VACP:FF01,2190	VP2190S
143+26	53PC-18.5	COLL:FF01,2210	PC-18.5S
143+26	53IONC	IONC:FF01,2210	IONC-18.5S
143+37	SEPTA LOCATION		
143+48	53PC-18	COLL:FF01,2220	PC-18 S
143+48	53IONC	IONC:FF01,2220	IONC-18 S
143+51	53Q18	QUAS:FF01,2250	QD18 S
143+54	53P	VACP:FF01,2290	VP2290S
143+54	VAC GAUGE	VACG:FF01,2290	VACG2290S *
143+77	53P	VACP:FF01,2300	VP2300S
143+80	53PR17	PROF:FF01,2330	PR17 S
143+82	53C1X	CDLL:FF01,2340	C1X S
143+82	53IONC	IONC:FF01,2340	IONC-C1X S
143+85	53Q17	QUAS:FF01,2350	QD17 S
143+88	53C1Y	COLL:FF01,2360	C1Y S
143+88	53IONC	IONC:FF01,2360	IONC-C1Y S
143+90	53A17X	XCOR:FF01,2370	A17X S
143+92	53A17Y	YCOR:FF01,2380	A17Y S
143+96	C/L XFMR ALCOVE S15T		
143+97	53P	VACP:FF01,2410	VP2410S
143+99	53PC-18.5	COLL:FF01,2420	PC-18.5S
144+08	53KICKER	KICK:FF01,2430	KICKER S
144+08	53P	VACP:FF01,2430	VP2430S
144+16	53BPM16	BPMS:FF01,2440	BPM16 S
144+19	53Q16	QUAS:FF01,2450	QF16 S
144+19	53QTRM	QTRM:FF01,2450	QF16 TRM S
144+20	53PC-15	COLL:FF01,2520	PC-15 S
144+21	53I(T)15A	TORD:FF01,2530	I15A S
144+22	53I(T)15B	TORD:FF01,2536	I15B S
144+24	53Q15	QUAS:FF01,2550	QD15 S
144+26	53PC-B3	COLL:FF01,3020	PC-B3 S
144+28	AS24/AS25 BOUNDARY		
144+31	53B3	BEND:FF01,3050	B3 S
144+31	B3 TRIM	BTRM:FF01,3050	B3 TRM S
144+36	53PC-14.5	COLL:FF01,3055	PC-14.5S
144+36	53IONC	IONC:FF01,3055	IONC-14.5S
144+37	53BPM15	BPMS:FF01,3060	BPM15 S
144+39	53A15X	XCOR:FF01,3070	A15X S
144+40	53A15Y	YCOR:FF01,3080	A15Y S
144+41	53PC-14	COLL:FF01,3120	PC-14 S
144+41	53IONC	IONC:FF01,3120	IONC-14 S
144+43	53A14X	XCOR:FF01,3130	A14X S
144+45	53A14Y	YCOR:FF01,3140	A14Y S
144+47	53Q14	QUAS:FF01,3160	QF14 S
144+50	53S8/SX14	SEXT:FF01,3160	SX14 S
144+52	53BPM14	BPMS:FF01,3170	BPM14 S
144+53	53P	VACP:FF01,3190	VP3190S

144+59	' 53PC-13 '	COLL:FF01,3220	' PC-13 S '
144+59	' 53IONC '	IONC:FF01,3220	' IONC-13 S '
144+60	' 53BPM13 '	BPMS:FF01,3230	' BPM13 S '
144+62	' 53S7/SX13 '	SEXT:FF01,3240	' SX13 S '
144+65	' 53Q13 '	QUAS:FF01,3250	' QD13 S '
144+67	' 53A13X '	XCOR:FF01,3270	' A13X S '
144+69	' 53A13Y '	YCOR:FF01,3280	' A13Y S '
144+70	' 53PC-12.5 '	COLL:FF01,3290	' PC-12.5S '
144+70	' 53IONC '	IONC:FF01,3290	' IONC-12.5S '
144+83	' 53P '	VACP:FF01,3300	' VP3300S '
144+90	' 53PC-12 '	COLL:FF01,3320	' PC-12 S '
144+90	' 53IONC '	IONC:FF01,3320	' IONC-12 S '
144+93	' 53A12X '	XCOR:FF01,3330	' A12X S '
144+94	' 53A12Y '	YCOR:FF01,3340	' A12Y S '
144+96	' 53Q12 '	QUAS:FF01,3350	' QF12 S '
144+99	' 53S6/SX12 '	SEXT:FF01,3360	' SX12 S '
145+01	' 53BPM12 '	BPMS:FF01,3370	' BPM12 S '
145+02	' 53PC-11.5 '	COLL:FF01,3390	' PC-11.5S '
145+02	' 53IONC '	IONC:FF01,3390	' IONC-11.5S '
145+03	' 53GV '	VACV:FF01,3395	' GV3395S '
145+07	' 53P '	VACP:FF01,3400	' VP3400S '
145+09	' 53BPM11 '	BPMS:FF01,3430	' BPM11 S '
145+11	' 53S6/SX11 '	SEXT:FF01,3440	' SX11 S '
145+14	' 53Q11 '	QUAS:FF01,3450	' QD11 S '
145+16	' 53A11X '	XCOR:FF01,3470	' A11X S '
145+18	' 53A11Y '	YCOR:FF01,3480	' A11Y S '
145+20	' 53PC-10.5 '	COLL:FF01,3490	' PC-10.5S '
145+20	' 53IONC '	IONC:FF01,3490	' IONC-10.5S '
145+25	' 53B2B '	BEND:FF01,3552	' B2B S '
145+25	' B2 TRIM '	BTRM:FF01,3552	' B2B TRM S '
145+30	' 53PC-B2 '	COLL:FF01,3554	' PC-B2 S '
145+35	' 53B2A '	BEND:FF01,3558	' B2A S '
145+35	' B2 TRIM '	BTRM:FF01,3558	' B2A TRM S '
145+41	' 53PC-10 '	COLL:FF01,3620	' PC-10 S '
145+41	' 53IONC '	IONC:FF01,3620	' IONC-10 S '
145+42	' 53A10X '	XCOR:FF01,3630	' A10X S '
145+44	' 53A10Y '	YCOR:FF01,3640	' A10Y S '
145+46	' 53Q10 '	QUAS:FF01,3650	' QF10 S '
145+49	' 53S4/SX10 '	SEXT:FF01,3660	' SX10 S '
145+51	' 53BPM10 '	BPMS:FF01,3670	' BPM10 S '
145+53	' 53P '	VACP:FF01,3690	' VP3690S '
145+57	' 53PC-9 '	COLL:FF01,3720	' PC-9 S '
145+58	' 53BPM9 '	BPMS:FF01,3730	' BPM9 S '
145+61	' 53S3/SX9 '	SEXT:FF01,3740	' SX9 S '
145+64	' 53Q9 '	QUAS:FF01,3750	' QD9 S '
145+66	' 53A9X '	XCOR:FF01,3770	' A9X S '
145+68	' 53A9Y '	YCOR:FF01,3780	' A9Y S '
145+69	' 53PC-8.5 '	COLL:FF01,3790	' PC-8.5 S '
145+77	' 53P '	VACP:FF01,3800	' VP3800S '
145+88	' 53PC-8.1 '	COLL:FF01,3810	' PC-8.1 S '
145+88	' 53IONC '	IONC:FF01,3810	' IONC-8.1 S '
145+89	' 53PC-8 '	COLL:FF01,3820	' PC-8 S '
145+89	' 53IONC '	IONC:FF01,3820	' IONC-8 S '
145+90	' 53A8X '	XCOR:FF01,3830	' A8X S '
145+92	' 53A8Y '	YCOR:FF01,3840	' A8Y S '
145+96	' 53Q8 '	QUAS:FF01,3850	' QF8 S '
145+98	' 53S2/SX8 '	SEXT:FF01,3860	' SX8 S '

146+01	' 53BPM8	' BPMS:FF01,3870	' BPM8 S
146+02	' 53PC-7.5	' COLL:FF01,3890	' PC-7.5 S
146+02	' 53IONC	' IONC:FF01,3890	' IONC-7.5 S
146+04	' 53P	' VACP:FF01,3900	' VP3900S
146+05	' LIQ LEVEL	' LEVL:FF01,3910	' LEVL3910S
146+07	C/L S16 ALCOVE		
146+07	' 53I(T)7	' TORO:FF01,3920	' I7 S
146+08	' 53BPM7	' BPMS:FF01,3930	' BPM7 S
146+10	' 53S1/SX7	' SEXT:FF01,3940	' SX7 S
146+13	' 53Q7	' QUAS:FF01,3950	' QD7 S
146+16	' 53PC-6.5	' COLL:FF01,3990	' PC-6.5 S
146+16	' 53IONC	' IONC:FF01,3990	' IONC-6.5 S
146+17	' 53BSM	' HBSM:FB73,4040	' BSM4040S
146+20	' 53A7X	' XCOR:FF01,4070	' A7X S
146+22	' 53A7Y	' YCOR:FF01,4080	' A7Y S
146+29	' 53B1	' BEND:FF01,4150	' B1 S
146+32	' 53P	' VACP:FF01,4200	' VP4200S
146+34	' LASER PORT	' LASR:FF01,4200	' LASER S *
146+41	' 53SB	' BEND:FF01,4250	' SB S
146+41	' SB TRIM	' BTRM:FF01,4250	' SB TRM S
146+50	' 53PC-6	' COLL:FF01,4290	' PC-6 S
146+50	' 53IONC	' IONC:FF01,4290	' IONC-6 S
146+51	' 53P	' VACP:FF01,4290	' VP4290S
146+54	' 53Q6	' QUAS:FF01,5150	' QD6 S
146+57	' 53PC-5.5	' COLL:FF01,5155	' PC-5.5 S
146+57	' 53IONC	' IONC:FF01,5155	' IONC-5.5 S
146+58	' 53BPM6	' BPMS:FF01,5160	' BPM6 S
146+59	' 53A6X	' XCOR:FF01,5170	' A6X S
146+61	' 53A6Y	' YCOR:FF01,5180	' A6Y S
146+64	' LASER DETR	' LDET:FF01,5190	' LDET5190S *
146+67	' 53P	' VACP:FF01,5200	' VP5200S
146+74	' 53PC-5	' COLL:FF01,5220	' PC-5 S
146+74	' 53IONC	' IONC:FF01,5220	' IONC-5 S
146+78	' 53Q5B	' QUAS:FF01,5252	' QF5B S
146+82	' 53Q5A	' QUAS:FF01,5258	' QF5A S
146+85	' 53P	' VACP:FF01,5260	' VP5260S
146+87	' 53I4A	' TORO:FF01,5280	' I4A S
146+88	' 53I4B	' TORO:FF01,5285	' I4B S
146+89	' 53PRA	' PROF:FF01,5295	' PR4A S
146+90	' 53FARC	' FARC:FF01,5300	' FARC S
146+90	' 53ST4	' STPR:FF01,5300	' ST4 S
146+90	' 53IONC	' IONC:FF01,5300	' IONC-FARCS
146+90	' VAC GAUGE	' VACG:FF01,5300	' VACG5300S *
146+91	' 53PRB	' PROF:FF01,5305	' PR4B S
146+93	' 53I4C	' TORO:FF01,5310	' I4C S
146+94	' 53I4D	' TORO:FF01,5315	' I4D S
146+95	' 53P	' VACP:FF01,5320	' VP5320S
146+95	' VAC GAUGE	' VACG:FF01,5320	' VACG5320S
146+95	' VAC SENSR	' VACS:FF01,5320	' VACS5320S
146+96	' 53GV	' VACV:FF01,5325	' GV5325S
146+97	I&C PENETRATION		
146+98	' 53PC-4	' COLL:FF01,5328	' PC-4 S
146+98	' 53IONC	' IONC:FF01,5328	' IONC-4 S
147+01	DC PENETRATION		
147+01	' 53A4X	' XCOR:FF01,5330	' A4X S
147+03	' 53A4Y	' YCOR:FF01,5340	' A4Y S
147+06	UTILITY PENETRATION		



147+06	' 53Q4	' QUAS:FF01,5350	' QD4	S	
147+09	' 53PC-3.5	' COLL:FF01,5380	' PC-3.5	S	
147+09	' LIQ LEVEL	' LEVL:FF01,5365	' LEVL5365S	'	
147+10	' 53BPM4	' BPMS:FF01,5370	' BPM4	S	
147+12	' 53PC-3	' COLL:FF01,5380	' PC-3	S	
147+12	' 53IONC	' IONC:FF01,5380	' IONC-3	S	
147+12	' 53P	' VACP:FF01,5380	' VP5380S	'	
147+16	' 53AP3Y	' YWAG:FB69,5400	' DITHERY	S	
147+18	' 53AF3X	' XWAG:FB69,5410	' DITHERX	S	
147+19	' 53BTEL	' BTEL:FB69,5415	' BTEL5415S	'	
147+20	' 53P	' VACP:FF01,5420	' VP5420S	'	
147+20	' VAC GAUGE	' VACG:FF01,5420	' VACG5420S	'	
147+20	' VAC SENSR	' VACS:FF01,5420	' VACS5420S	'	
147+23	' 53A3X	' XCOR:FB69,5430	' A3X	S	
147+25	' 53A3Y	' YCOR:FB69,5440	' A3Y	S	
147+26	' 53SQ3	' QUAD:FF01,5445	' SQ3	S	
147+28	' 53MASK1	' MASK:FF01,5447	' MASK1	S	
147+31	' 53BPM3	' BPMS:FB69,5450	' BPM3	S	(INCOMING)
147+31	' 53BPM3	' BPMS:FB69,16850	' BPM3	S	(OUTGOING)
147+31	' 53Q3	' QUAS:FF01,5450	' QD3	S	
147+31	' 53QTRM3	' QTRM:FF01,5450	' QD3 TRM	S	
147+32	' 53STEP	' STEP:FF01,5451	' STEP5451S	'	
147+32	' 53STEP	' STEP:FF01,5452	' STEP5452S	'	
147+32	' 53STEP	' STEP:FF01,5453	' STEP5453S	'	
147+33	' LIQ LEVEL	' LEVL:FF01,5460	' LEVL5460S	'	
147+33	' 53P	' VACP:FF01,5500	' VP5500S	'	
147+35	' 53Q2B	' QUAS:FF01,5550	' QF2B	S	
147+35	' 53QTRM2B	' QTRM:FF01,5550	' QF2B TRMS	'	
147+40	' 53Q2A	' QUAS:FF01,5555	' QF2A	S	
147+40	' 53QTRM2A	' QTRM:FF01,5555	' QF2A TRMS	'	
147+42	' 53P	' VACP:FF01,5600	' VP5600S	'	
147+44	' 53Q1	' QUAS:FF01,5650	' QD1	S	
147+44	' 53QTRM1	' QTRM:FF01,5650	' QD1 TRM	S	
147+44	' 53BPM1	' BPMS:FB69,5650	' BPM1	S	(INCOMING)
147+44	' 53BPM1	' BPMS:FB69,16650	' BPM1	S	(OUTGOING)
147+45	' 53STEP	' STEP:FF01,5651	' STEP5651S	'	
147+45	' 53STEP	' STEP:FF01,5652	' STEP5652S	'	
147+46	' 53VBM	' VBSM:FB73,6100	' VBM6100S	'	
147+46	' 53P	' VACP:FF01,6110	' VP6110S	'	
147+47	' VAC GAUGE	' VACG:FF01,6110	' VACG6110S	'	*
147+48	' MASK2	' MASK:FF01,6160	' MASK2	S	
147+48	' MINI SAM	' MSAM:FF01,6190	' MINISAM	S	
147+48	' SAM	' LMDN:FF01,6240	' SAM	S	
147+48	' MASK3	' MASK:FF01,6290	' MASK3	S	
147+53	' 53GV	' VACV:FF01,7000	' GV7000S	'	
147+54	' 53P	' VACP:FF01,7100	' VP7100S	'	
147+54	' VAC GAUGE	' VACG:FF01,7100	' VACG7100S	'	
147+54	' VAC SENSR	' VACS:FF01,7100	' VACS7100S	'	
147+55	' 53WIRE	' WIRE:FB69,7500	' WIRE	S	
147+55					IP

\*\*\*\*\* SOUTH EXTRACTION LINE \*\*\*\*\*

STATION	MECH.ENG. NAME	FORMAL NAME	COMMON NAME
143+47	' 55BPM18 '	BPMS:FFO1,8010	' BPM18 S '
143+44	' 55SEPTUM '	SEPT:FFO1,8052	' SEPTUM2 S '
143+44	' 55BTRM '	BTRM:FFO1,8052	' SEP2 TRMS '
143+39	' 55SEPTUM '	SEPT:FFO1,8054	' SEPTUM4 S '
143+39	' 55BTRM '	BTRM:FFO1,8054	' SEP4 TRMS '
143+34	' 55SEPTUM '	SEPT:FFO1,8056	' SEPTUM6 S '
143+34	' 55BTRM '	BTRM:FFO1,8056	' SEP6 TRMS '
143+30	' 55SEPTUM '	SEPT:FFO1,8058	' SEPTUM8 S '
143+30	' 55BTRM '	BTRM:FFO1,8058	' SEP8 TRMS '
143+27	' 55GV '	VACV:FFO1,8100	' GV8100S '
143+25	' VAC GAUGE '	VACG:FFO1,8110	' VACG8110S '
143+25	' VAC SENSR '	VACS:FFO1,8115	' VACS8115S '
143+23	' 55P '	VACP:FFO1,8120	' VP8120S '
143+15	' 55A31Y '	YCDR:FFO1,8140	' A31Y S '
143+07	G/L S15 ALCOVE		
143+04	' 55A31X '	XCDR:FFO1,8150	' A31X S '
143+00	' 55Q31 '	QUAS:FFO1,8250	' QF31 S ' EXTR SPECTR
142+86	' 55Q32 '	QUAS:FFO1,8350	' QD32 S ' EXTR SPECTR
142+80	' 55B31 '	BEND:FFO1,8650	' B31 S ' EXTR SPECTR
142+72	' 55B32 '	BEND:FFO1,8650	' B32 S ' EXTR SPECTR
142+65	' 55B33 '	BEND:FFO1,8750	' B33 S ' EXTR SPECTR
142+51	AS24/AS23 BOUNDARY		
142+24	' 55PC-31 '	COLL:FFO1,9720	' PC-31 S '
142+24	' 55IONC '	IONC:FFO1,9720	' IONC-31 S '
142+22	' 55BPM31 '	BPMS:FFO1,9750	' BPM31 S '
142+21	' 55I(T)31A '	TORO:FFO1,9780	' I31A S '
142+20	' 55I(T)31B '	TORO:FFO1,9785	' I31B S '
142+07	' 55PR31 '	PROF:FFO1,9980	' PR31 S '
142+06	' 55DUMP '	DUMP:FFO1,9990	' DUMP S '

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\*\*\*\*\* NORTH FF \*\*\*\*\*

STATION	MECH.ENG. NAME	FORMAL NAME	COMMON NAME
142+04	' 54BPM26 '	BPMS:CA13,2403	' BPM26 N '
142+05	' 54CQ6/26 '	QUAD:FF11,1120	' CQ6 N '
142+06	' 54SQ6/26 '	QUAD:FF11,1130	' SQ6 N '
142+10	' 54B6 '	BEND:FF11,1150	' B6 N '
142+10	' B6 TRIM '	BTRM:FF11,1150	' B6 TRM N '
142+14	' VAC GAUGE '	VACG:FF11,1210	' VACG1210N '
142+14	' VAC SENSR '	VACS:FF11,1210	' VACS1210N '
142+15	' 54A25Y '	YCDR:FF11,1240	' A25Y N '
142+16	' 54Q25 '	QUAS:FF11,1250	' QF25 N '
142+17	' 54A25X '	XCDR:FF11,1260	' A25X N '
142+18	' 54I(T)24A '	TORO:CA13,2420	' I24A N ' MPS
142+19	' 54I(T)24B '	TORO:FF11,1275	' I24B N ' MPS

142+20	' 54PC-24	' COLL:FF11.1320	' PC-24 N
142+22	' 54Q24	' QUAS:FF11.1350	' QD24 N
142+23	' 54GV	' VACV:FF11.1380	' GV1380N
142+24	' 54TD23	' STPR:FF11.1400	' TD23 N
142+24	' 54IONC	' IONC:FF11.1400	' IONC1400N
142+25	' 54P	' VACP:FF11.1400	' VP1400N
142+27	' 54A23X	' XCOR:FF11.1440	' A23X N
142+28	' 54Q23	' QUAS:FF11.1450	' QF23 N
142+29	' 54A23Y	' YCOR:FF11.1460	' A23Y N
142+30	' 54CQ5/23	' QUAD:FF11.1520	' CQ5 N
142+31	' 54SQ5/23	' QUAD:FF11.1530	' SQ5 N
142+32	' 54I(T)23	' TORO:FF11.1540	' I23 N
142+34	' 54B5	' BEND:FF11.1550	' B5 N
142+34	' B5 TRIM	' BTRM:FF11.1550	' B5 TRM N
142+36	' VAC GAUGE	' VACG:FF11.1610	' VACG1610N
142+36	' VAC SENSR	' VACS:FF11.1610	' VACS1610N
142+37	' 54GV	' VACV:FF11.1620	' GV1620N
142+38	' 54COX	' COLL:FF11.1640	' CO N
142+38	' 54IONC	' IONC:FF11.1640	' IONC-CO N
142+40	' 54Q22	' QUAS:FF11.1650	' QF22 N
142+42	' 54BPM22	' BPMS:FF11.1660	' BPM22 N
142+43	' 54P	' VACP:FF11.1700	' VP1700N
142+44	' VAC GAUGE	' VACG:FF11.1710	' VACG1710N
142+44	' VAC SENSR	' VACS:FF11.1710	' VACS1710N
142+45	' 54PC-21	' COLL:FF11.1720	' PC-21 N
142+47	' 54Q21	' QUAS:FF11.1750	' QD21 N
142+53	' 54Q20	' QUAS:FF11.1850	' QF20 N
142+54	' 54BPM20	' BPMS:FF11.1860	' BPM20 N
142+59	' 54B4	' BEND:FF11.1950	' B4 N
142+59	' B4 TRIM	' BTRM:FF11.1950	' B4 TRM N
142+63	' 54PC-19	' COLL:FF11.1970	' PC-19 N
142+65	' 54Q19	' QUAS:FF11.2150	' QF19 N
142+66	' 54BPM19	' BPMS:FF11.2160	' BPM19 N
142+68	' 54A19X	' XCOR:FF11.2170	' A19X N
142+69	' 54A19Y	' YCOR:FF11.2180	' A19Y N
142+70	' 54P	' VACP:FF11.2190	' VP2190N
142+74	' 54PC-18.5	' COLL:FF11.2210	' PC-18.5N
142+74	' 54IONC	' IONC:FF11.2210	' IONC-18.5N
142+81	SEPTA LOCATION		
142+94	' 54PC-18	' COLL:FF11.2220	' PC-18 N
142+94	' 54IONC	' IONC:FF11.2220	' IONC-18 N
142+97	' 54P	' VACP:FF11.2230	' VP2230N
142+97	' VAC GAUGE	' VACG:FF11.2230	' VACG2230N *
143+02	' 54Q18	' QUAS:FF11.2250	' QD18 N
143+24	C/L N15 ALCOVE		
143+24	' 54P	' VACP:FF11.2300	' VP2300N
143+28	' 54PR17	' PROF:FF11.2330	' PR17 N
143+30	' 54C1X	' COLL:FF11.2340	' C1X N
143+30	' 54IONC	' IONC:FF11.2340	' IONC-C1X N
143+33	' 54Q17	' QUAS:FF11.2350	' QD17 N
143+35	' 54C1Y	' COLL:FF11.2360	' C1Y N
143+35	' 54IONC	' IONC:FF11.2360	' IONC-C1Y N
143+37	' 54A17X	' XCOR:FF11.2370	' A17X N
143+39	' 54A17Y	' YCOR:FF11.2380	' A17Y N
143+40	' 54P	' VACP:FF11.2410	' VP2410N
143+41	' 54PC-16.5	' COLL:FF11.2420	' PC-16.5N
143+49	' 54KICKER	' KICK:FF11.2430	' KICKER N

143+49	' 54P	' VACP:FF11,2430	' VP2430N
143+56		C/L XFMR ALCOVE	
143+57	' 54BPM16	' BPMS:FF11,2440	' BPM16 N
143+59	' 54Q16	' QUAS:FF11,2450	' QF16 N
143+59	' 54QTRM	' QTRM:FF11,2450	' QF16 TRM N
143+62	' 54PC-15	' COLL:FF11,2520	' PC-15 N
143+63	' 54I(T)15A	' TORO:FF11,2530	' I15A N
143+64	' 54I(T)15B	' TORO:FF11,2535	' I15B N
143+66	' 54Q15	' QUAS:FF11,2550	' QD15 N
143+68		AN24/AN25 BOUNDARY	
143+69	' 54PC-B3	' COLL:FF11,3020	' PC-B3 N
143+73	' 54B3	' BEND:FF11,3050	' B3 N
143+73	' B3 TRIM	' BTRM:FF11,3050	' B3 TRM N
143+78	' 54PC-14.5	' COLL:FF11,3055	' PC-14.5N
143+78	' 54IONC	' IONC:FF11,3055	' IONC-14.5N
143+79	' 54BPM15	' BPMS:FF11,3060	' BPM15 N
143+80	' 54A15X	' XCOR:FF11,3070	' A15X N
143+82	' 54A15Y	' YCOR:FF11,3080	' A15Y N
143+84	' 54PC-14	' COLL:FF11,3120	' PC-14 N
143+84	' 54IONC	' IONC:FF11,3120	' IONC-14 N
143+85	' 54A14X	' XCOR:FF11,3130	' A14X N
143+87	' 54A14Y	' YCOR:FF11,3140	' A14Y N
143+89	' 54Q14	' QUAS:FF11,3150	' QF14 N
143+92	' 54S8/SX14	' SEXT:FF11,3160	' SX14 N
143+94	' 54BPM14	' BPMS:FF11,3170	' BPM14 N
143+95	' 54P	' VACP:FF11,3190	' VP3190N
144+01	' 54PC-13	' COLL:FF11,3220	' PC-13 N
144+01	' 54IONC	' IONC:FF11,3220	' IONC-13 N
144+02	' 54BPM13	' BPMS:FF11,3230	' BPM13 N
144+04	' 54S7/SX13	' SEXT:FF11,3240	' SX13 N
144+07	' 54Q13	' QUAS:FF11,3250	' QD13 N
144+09	' 54A13X	' XCOR:FF11,3270	' A13X N
144+11	' 54A13Y	' YCOR:FF11,3280	' A13Y N
144+12	' 54PC-12.5	' COLL:FF11,3290	' PC-12.5N
144+12	' 54IONC	' IONC:FF11,3290	' IONC-12.5N
144+25	' 54P	' VACP:FF11,3300	' VP3300N
144+32	' 54PC-12	' COLL:FF11,3320	' PC-12 N
144+32	' 54IONC	' IONC:FF11,3320	' IONC-12 N
144+35	' 54A12X	' XCOR:FF11,3330	' A12X N
144+36	' 54A12Y	' YCOR:FF11,3340	' A12Y N
144+39	' 54Q12	' QUAS:FF11,3350	' QF12 N
144+41	' 54S6/SX12	' SEXT:FF11,3360	' SX12 N
144+43	' 54BPM12	' BPMS:FF11,3370	' BPM12 N
144+44	' 54PC-11.5	' COLL:FF11,3390	' PC-11.5N
144+44	' 54IONC	' IONC:FF11,3390	' IONC-11.5N
144+45	' 54GV	' VACV:FF11,3395	' GV3395N
144+49	' 54P	' VACP:FF11,3400	' VP3400N
144+51	' 54BPM11	' BPMS:FF11,3430	' BPM11 N
144+53	' 54S5/SX11	' SEXT:FF11,3440	' SX11 N
144+56	' 54Q11	' QUAS:FF11,3450	' QD11 N
144+58	' 54A11X	' XCOR:FF11,3470	' A11X N
144+60	' 54A11Y	' YCOR:FF11,3480	' A11Y N
144+62	' 54PC-10.5	' COLL:FF11,3490	' PC-10.5N
144+62	' 54IONC	' IONC:FF11,3490	' IONC-10.5N
144+67	' 54B2B	' BEND:FF11,3552	' B2B N
144+67	' B2 TRIM	' BTRM:FF11,3552	' B2B TRM N
144+72	' 54PC-B2	' COLL:FF11,3564	' PC-B2 N

144+77	' 54B2A	' BEND:FF11,3558	' B2A N
144+77	' B2 TRIM	' BTRM:FF11,3558	' B2A TRM N
144+83	' 54PC-10	' COLL:FF11,3620	' PC-10 N
144+83	' 54IONC	' IONC:FF11,3620	' IONC-10 N
144+84	' 54A10X	' XCOR:FF11,3630	' A10X N
144+86	' 54A10Y	' YCOR:FF11,3640	' A10Y N
144+88	' 54Q10	' QUAS:FF11,3650	' QF10 N
144+91	' 54S4/SX10	' SEXT:FF11,3660	' SX10 N
144+93	' 54BPM10	' BPMS:FF11,3670	' BPM10 N
144+95	' 54P	' VACP:FF11,3690	' VP3690N
145+00	' 54PC-9	' COLL:FF11,3720	' PC-9 N
145+01	' 54BPM9	' BPMS:FF11,3730	' BPM9 N
145+03	' 54S3/SX9	' SEXT:FF11,3740	' SX9 N
145+06	' 54Q9	' QUAS:FF11,3750	' QD9 N
145+08	' 54A9X	' XCOR:FF11,3770	' A9X N
145+10	' 54A9Y	' YCOR:FF11,3780	' A9Y N
145+11	' 54PC-8.5	' COLL:FF11,3790	' PC-8.5 N
145+19	' 54P	' VACP:FF11,3800	' VP3800N
145+30	' 54PC-8.1	' COLL:FF11,3810	' PC-8.1 N
145+30	' 54IONC	' IONC:FF11,3810	' IONC-8.1 N
145+32	' 54PC-8	' COLL:FF11,3820	' PC-8 N
145+32	' 54IONC	' IONC:FF11,3820	' IONC-8 N
145+34	' 54A8X	' XCOR:FF11,3830	' A8X N
145+35	' 54A8Y	' YCOR:FF11,3840	' A8Y N
145+37	' 54Q8	' QUAS:FF11,3850	' QF8 N
145+40	' 54S2/SX8	' SEXT:FF11,3860	' SX8 N
145+42	' 54BPM8	' BPMS:FF11,3870	' BPM8 N
145+44	' 54PC-7.5	' COLL:FF11,3890	' PC-7.5 N
145+44	' 54IONC	' IONC:FF11,3890	' IONC-7.5 N
145+46	' 54P	' VACP:FF11,3900	' VP3900N
145+49	' 54I(T)7	' TORQ:FF11,3920	' I7 N
145+50	' 54BPM7	' BPMS:FF11,3930	' BPM7 N
145+53	' 54S1/SX7	' SEXT:FF11,3940	' SX7 N
145+56	' 54Q7	' QUAS:FF11,3950	' QD7 N
145+58	' 54PC-6.5	' COLL:FF11,3990	' PC-6.5 N
145+58	' 54IONC	' IONC:FF11,3990	' IONC-6.5 N
145+59	' 54BSM	' HBSM:FB73,4041	' BSM4041N
145+62	' 54A7X	' XCOR:FF11,4070	' A7X N
145+64	' 54A7Y	' YCOR:FF11,4080	' A7Y N
145+65	' LIQ LEVEL	' LEVL:FF11,4100	' LEVL4100N
145+66		UTILITY PENETRATION	
145+71	' 54B1	' BEND:FF11,4150	' B1 N
145+72		DC PENETRATION	
145+74		N16 ALCOVE	
145+76	' 54P	' VACP:FF11,4200	' VP4200N
145+77		I&C PENETRATION	
145+83	' 54SB	' BEND:FF11,4250	' SB N
145+83	' SB TRIM	' BTRM:FF11,4250	' SB TRM N
145+92	' 54PC-6	' COLL:FF11,4290	' PC-6 N
145+92	' 54IONC	' IONC:FF11,4290	' IONC-6 N
145+93	' 54P	' VACP:FF11,4290	' VP4290N
145+96	' 54Q6	' QUAS:FF11,5150	' QF6 N
145+99	' 54PC-5.5	' COLL:FF11,5155	' PC-5.5 N
145+99	' 54IONC	' IONC:FF11,5155	' IONC-5.5 N
146+00	' 54BPM6	' BPMS:FF11,5160	' BPM6 N
146+03	' 54A6X	' XCOR:FF11,5170	' A6X N
146+05	' 54A6Y	' YCOR:FF11,5180	' A6Y N

146+09	' 54P	' VACP:FF11,5200	' VP5200N	'
146+16	' 54PC-5	' COLL:FF11,5220	' PC-5 N	'
146+16	' 54IONC	' IONC:FF11,5220	' IONC-5 N	'
146+20	' 54Q5B	' QUAS:FF11,5252	' QD5B N	'
146+24	' 54Q5A	' QUAS:FF11,5258	' QD5A N	'
146+27	' 54P	' VACP:FF11,5260	' VP5260N	'
146+30	' 54I4A	' TORO:FF11,5280	' I4A N	'
146+31	' 54I4B	' TORO:FF11,5285	' I4B N	'
146+32	' 54PRA	' PROF:FF11,5295	' PR4A N	'
146+33	' 54FARC	' FARC:FF11,5300	' FARC N	'
146+33	' 54ST4	' STPR:FF11,5300	' ST4 N	'
146+33	' 54IONC	' IONC:FF11,5300	' IONC-FARC N	'
146+33	' VAC GAUGE	' VACG:FF11,5300	' VACG5300N	' *
146+34	' 54PRB	' PROF:FF11,5305	' PR4B N	'
146+35	' 54I4C	' TORO:FF11,5310	' I4C N	'
146+36	' 54I4D	' TORO:FF11,5315	' I4D N	'
146+38	' 54P	' VACP:FF11,5320	' VP5320N	'
146+38	' VAC GAUGE	' VACG:FF11,5320	' VACG5320N	'
146+38	' VAC SENSR	' VACS:FF11,5320	' VACS5320N	'
146+39	' 54GV	' VACV:FF11,5325	' GV5325N	'
146+40	' 54PC-4	' COLL:FF11,5328	' PC-4 N	'
146+40	' 54IONC	' IONC:FF11,5328	' IONC-4 N	'
146+43	' 54A4X	' XCOR:FF11,5330	' A4X N	'
146+45	' 54A4Y	' YCOR:FF11,5340	' A4Y N	'
146+48	' 54Q4	' QUAS:FF11,5350	' QF4 N	'
146+50	' 54PC-3.5	' COLL:FF11,5360	' PC-3.5 N	'
146+50	' LIQ LEVEL	' LEVL:FF11,5365	' LEVL5365N	'
146+51	' 54BPM4	' BPMS:FF11,5370	' BPM4 N	'
146+52	' 54PC-3	' COLL:FF11,5380	' PC-3 N	'
146+52	' 54IONC	' IONC:FF11,5380	' IONC-3 N	'
146+52	' 54P	' VACP:FF11,5380	' VP5380N	'
146+58	' 54AP3Y	' YWAG:FB69,5401	' DITHERY N	'
146+60	' 54AP3X	' XWAG:FB69,5411	' DITHERX N	'
146+61	' 54BTEL	' BTEL:FB69,5416	' BTEL5416N	'
146+62	' 54P	' VACP:FF11,5420	' VP5420N	'
146+63	' VAC GAUGE	' VACG:FF11,5420	' VACG5420N	'
146+63	' VAC SENSR	' VACS:FF11,5420	' VACS5420N	'
146+65	' 54A3X	' XCOR:FB69,5431	' A3X N	'
146+67	' 54A3Y	' YCOR:FB69,5441	' A3Y N	'
146+68	' 54SQ3	' QUAD:FF11,5445	' SQ3 N	'
146+70	' 54MASK1	' MASK:FF11,5447	' MASK1 N	'
146+73	' 54BPM3	' BPMS:FB69,15450	' BPM3 N	' (INCOMING)
146+73	' 54BPM3	' BPMS:FB69,6850	' BPM3 N	' (OUTGOING)
146+73	' 54Q3	' QUAS:FF11,5450	' QF3 N	'
146+73	' 54QTRM3	' QTRM:FF11,5450	' QF3 TRM N	'
146+74	' 54STEP	' STEP:FF11,5451	' STEP5451N	'
146+74	' 54STEP	' STEP:FF11,5452	' STEP5452N	'
146+74	' 54STEP	' STEP:FF11,5453	' STEP5453N	'
146+75	' LIQ LEVEL	' LEVL:FF11,5460	' LEVL5460N	'
146+75	' 54P	' VACP:FF11,5500	' VP5500N	'
146+77	' 54Q2B	' QUAS:FF11,5550	' QD2B N	'
146+77	' 54QTRM2B	' QTRM:FF11,5550	' QD2B TRMN	'
146+82	' 54Q2A	' QUAS:FF11,5555	' QD2A N	'
146+82	' 54QTRM2A	' QTRM:FF11,5555	' QD2A TRMN	'
146+84	' 54P	' VACP:FF11,5600	' VP5600N	'
146+86	' 54Q1	' QUAS:FF11,5650	' QF1 N	'
146+86	' 54QTRM1	' QTRM:FF11,5650	' QF1 TRM N	'

146+86	' 54BPM1	' BPMS:FB69,15550	' BPM1	N	' (INCOMING)
146+86	' 54BPM1	' BPMS:FB69,6650	' BPM1	N	' (OUTGOING)
146+87	' 54STEP	' STEP:FF11,5651	' STEP5651N	'	
146+87	' 54STEP	' STEP:FF11,5652	' STEP5652N	'	
146+88	' 54VBM	' VBSM:FB73,6101	' VBM6101N	'	
146+88	' 54P	' VACP:FF11,6110	' VP6110N	'	
146+89	' VAC GAUGE	' VACG:FF11,6110	' VACG6110N	'	*
146+90	' MASK2	' MASK:FF11,6160	' MASK2 N	'	
146+90	' MINI SAM	' MSAM:FF11,6190	' MINISAM N	'	
146+90	' SAM	' LMON:FF11,6240	' SAM N	'	
146+91	' MASK3	' MASK:FF11,6290	' MASK3 N	'	
146+95	' 54GV	' VACV:FF11,7000	' GV7000N	'	
146+96	' 54P	' VACP:FF11,7100	' VP7100N	'	
146+96	' VAC GAUGE	' VACG:FF11,7100	' VACG7100N	'	
146+96	' VAC SENSR	' VACS:FF11,7100	' VACS7100N	'	
146+97	' 54WIRE	' WIRE:FB69,7500	' WIRE N	'	
146+97					
	IP				

\*\*\*\*\* NORTH EXTRACTION LINE \*\*\*\*\*

STATION	MECH.ENG. NAME	FORMAL NAME	COMMON NAME		
142+92	' 56BPM18	' BPMS:FF11,8010	' BPM18	N	'
142+90	' 56SEPTUM	' SEPT:FF11,8052	' SEPTUM2	N	'
142+90	' 56BTRM	' BTRM:FF11,8052	' SEP2 TRMN	'	
142+85	' 56SEPTUM	' SEPT:FF11,8054	' SEPTUM4	N	'
142+85	' 56BTRM	' BTRM:FF11,8054	' SEP4 TRMN	'	
142+81	' 56SEPTUM	' SEPT:FF11,8058	' SEPTUM6	N	'
142+81	' 56BTRM	' BTRM:FF11,8058	' SEP6 TRMN	'	
142+76	' 56SEPTUM	' SEPT:FF11,8058	' SEPTUM8	N	'
142+76	' 56BTRM	' BTRM:FF11,8058	' SEP8 TRMN	'	
142+71	' 56SEPTUM	' SEPT:FF11,8059	' SEPTUM9	N	'
142+71	' 56BTRM	' BTRM:FF11,8059	' SEP9 TRMN	'	
142+63	' 56GV	' VACV:FF11,8100	' GV8100N	'	
142+62	' VAC GAUGE	' VACG:FF11,8110	' VACG8110N	'	
142+62	' VAC SENSR	' VACS:FF11,8115	' VACS8115N	'	
142+61	' 56P	' VACP:FF11,8120	' VP8120N	'	
142+55	' 56A31Y	' YCOR:FF11,8140	' A31Y	N	'
142+51	' 56A31X	' XCOR:FF11,8150	' A31X	N	'
142+50	' 56Q31	' QUAS:FF11,8250	' QF31	N	' EXTR SPECTR
142+18	' 56Q32	' QUAS:FF11,8350	' QD32	N	' EXTR SPECTR
141+92		AN24/AN23 BOUNDARY			
141+89	' 56Q33	' QUAS:FF11,8450	' QF33	N	' EXTR SPECTR
141+78	' 56B31	' BEND:FF11,8550	' B31	N	' EXTR SPECTR
141+70	' 56B32	' BEND:FF11,8650	' B32	N	' EXTR SPECTR
141+63	' 56B33	' BEND:FF11,8750	' B33	N	' EXTR SPECTR
141+21	' 56PC-31	' COLL:FF11,9720	' PC-31	N	'
141+21	' 56IONC	' IONC:FF11,9720	' IONC-31	N	'
141+19	' 56BPM31	' BPMS:FF11,9750	' BPM31	N	'
141+18	' 56I(T)31A	' TORO:FF11,9780	' I31A	N	'
141+17	' 56I(T)31B	' TORO:FF11,9785	' I31B	N	'
141+03	' 56PR31	' PROF:FF11,9980	' PR31	N	'
141+01	' 56DUMP	' DUMP:FF11,9990	' DUMP	N	'