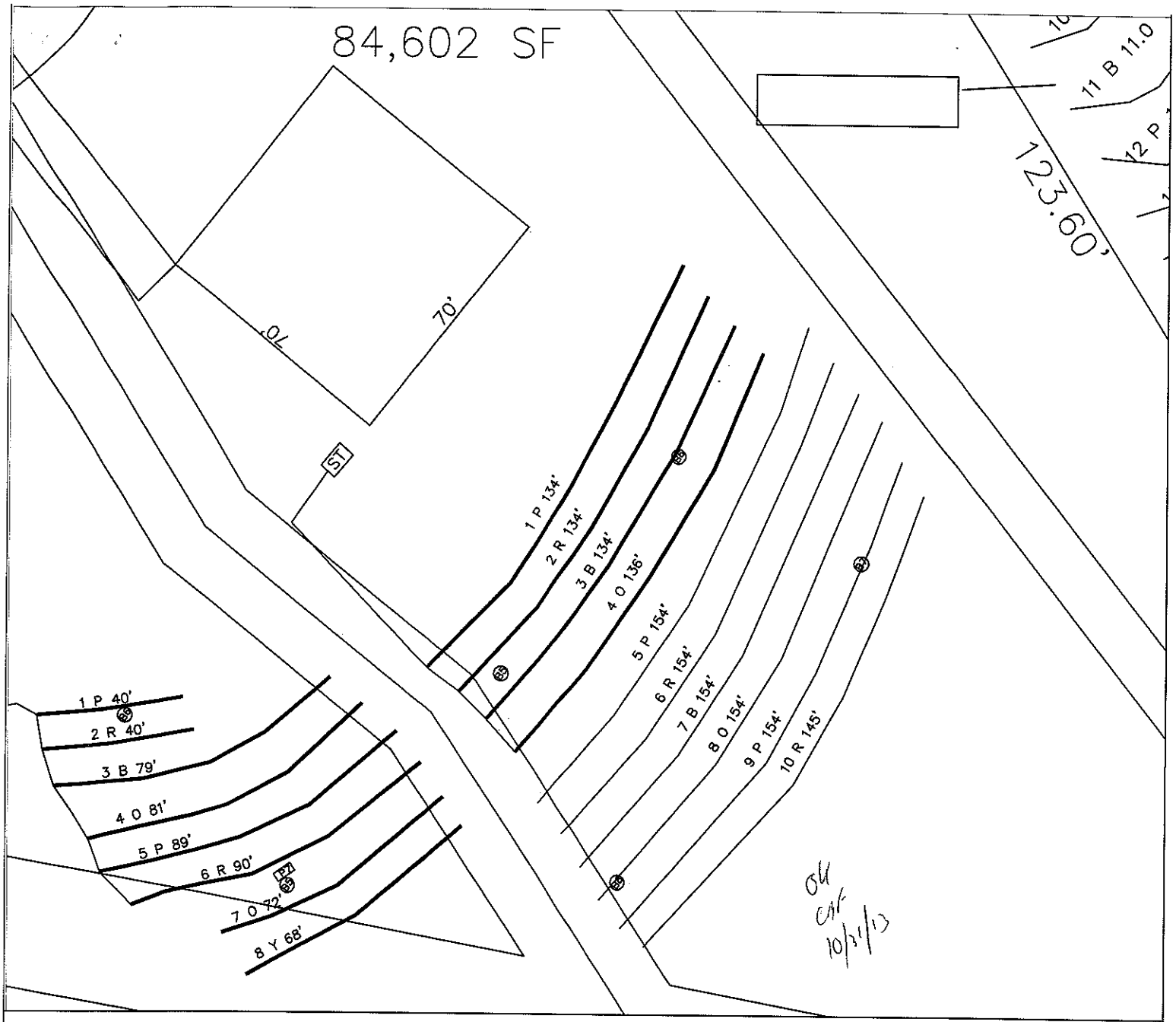


LEGEND

Areas contain soils with 24 inches or more of useable material and have potential for conventional, modified conventional and low-pressure pipe (lpp) septic systems.

House Footprint

System lines.

Repair lines.

Temporary Bench Mark (TBM)

(W) Well Location. (25) Pit/Boring Location.

GRAPHIC SCALE

1" = 40'

40 0 40 80

FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE FINAL APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND COMPLEX TOPOGRAPHIC FEATURES. THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS.

PLEASE REFER TO ATTACHED SOIL REPORT FOR ADDITIONAL SITE SPECIFIC INFORMATION

ROLLANS SOIL & ENVIRONMENTAL SERVICES, PA

P.O. BOX 832
MOORESVILLE, NC 28115
PHONE/FAX: (704) 278-0989

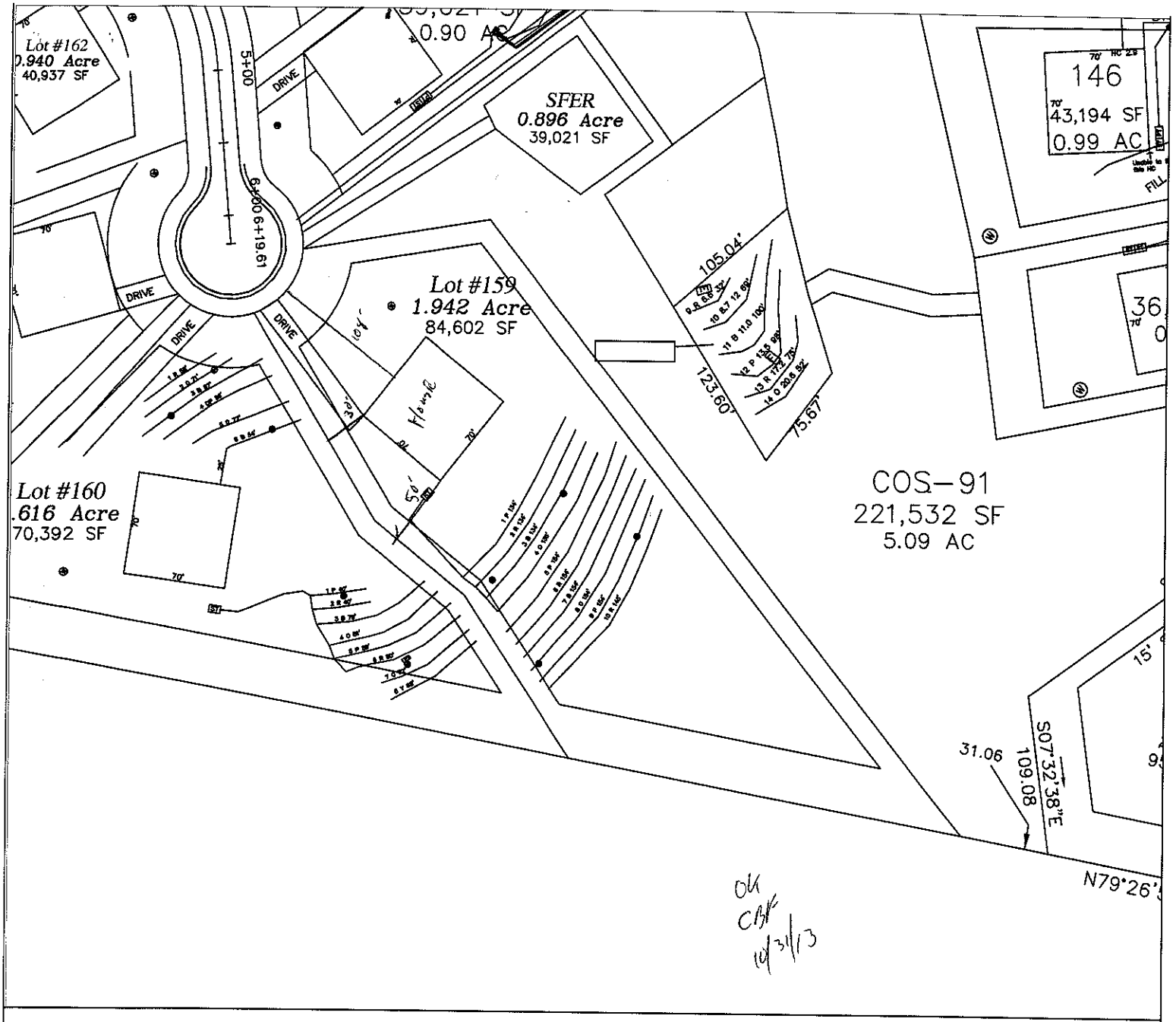
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746-5046
EMAIL: rollans.ashley@yahoo.com

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: ANNISTON II, LLC / ANNISTON SUBDIVISION

LOCATION/DATE: SHEARER CHAPEL ROAD IREDELL COUNTY, NORTH CAROLINA SEPTEMBER 2013

JOB # :	01-1005
FILE:	C:\JOBS\01-1005
PROJECT MGR.:	S.A.R.
FIELD WORK:	S.A.R.
DRAWN BY:	S.A.R.



LEGEND

- Areas contain soils with 24 inches or more of useable material and have potential for conventional, modified conventional and low-pressure pipe (lpp) septic systems.
- House Footprint
- System lines.
- Repair lines.
- Temporary Bench Mark (TBM)
- Well Location.
- (25) Pit/Boring Location.

GRAPHIC SCALE

1" = 100'

100 0 100 200

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P.O. BOX 832
MOORESVILLE, NC 28115
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ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: rollans.ashley@yahoo.com

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME: ANNISTON II, LLC / ANNISTON SUBDIVISION

LOCATION/DATE: SHEARER CHAPEL ROAD IREDELL COUNTY, NORTH CAROLINA SEPTEMBER 2013

JOB # : 01-1005
FILE: C:\JOBS\01-1005
PROJECT MGR.: S.A.R.
FIELD WORK: S.A.R.
DRAWN BY: S.A.R.

GRAVITY ACCEPTED SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: Anniston II, LLC

Address: P.O. Box 39
Cornelius, NC 28031
Phone: 704.622.3569
County: Iredell
Location: ANNISTON LOT 159

Source of Wastewater Flow: 5 Bedroom Single Family Residence
Estimated Gallons Per Day Flow: 600
System Flow: N/A

Design Specifications

Drainfield Size: 500
Loading Rate (gpd/ft.^{2}): 0.3
Depth of Gravel in Trench: N/A
Gravel Size: N/A
Trench Depth: 28 in.
Trench Width: 36 in.
Septic Tank Size: 1500

Estimated Supply Line Length: 70
Supply Line Diameter: 4 in. SCH 40 PVC
Supply Line Volume: 45.71
Dosing Volume: N/A
Supply Manifold: N/A
Supply Manifold Length: N/A
Supply Manifold Volume: N/A

Recommended Float Controls: N/A

Recommended Control Panel: N/A

Pressure Head: N/A
Friction Head: N/A
Elevation Head: N/A
Total Dynamic Head: N/A

OK
CMF
10/31/13

Threaded Union: N/A
Gate Valves: N/A

Check Valves: N/A
Anti-Siphon Hole: N/A
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

ANNISTON LOT 159

ACCEPTED SYSTEM

DESIGN FLOW (gpd):	600
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	1500
TOTAL LATERAL LENGTH:	500
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	500
SUPPLY LINE LENGTH:	70
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1500

OK
CAF
10/31/13

ANNISTON LOT 159

Project #: 01-1005

LAYOUT FOR 5 BEDROOM HOME

October 24, 2013

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1							
1	***PINK***					***134***	***125***
2	***RED***					***134***	***125***
3	***BLUE***					***134***	***125***
4	***ORANGE***					***136***	***125***
5	PINK					154	154
6	RED					154	154
7	BLUE					154	154
8	ORANGE					154	154
9	PINK					154	154
10	RED					145	145
					Total	**1453**	**1415**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
****System***	***500***	***0.300***	***ACCEPT.***	***0.300***	***25% RED***	***GRAVITY***
Repair	915	0.300	***ACCEPT.***	0.300	***25% RED***	***GRAVITY***

OM CAM 10/31/13

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings

CALCULATIONS

Location ANNISTON PH IV

Project Number 01-1005

Lot No: Lot 159

No. of Bedrooms 5

Design Flow 600 $^{gal}/_{day}$

LTAR 0.300 $^{gal}/_{ft^2\ day}$

PPBPS? (YES OR NO) NO

Supply Line Length 70 ft.

Supply Line Volume 45.71 gal.

Required Feet of Line 500 ft.
Amount of Line from Layout 500 ft.

Gallons per Minute N/A $^{gal}/_{min}$

Required Septic Tank Capacity 1500 gal.
Septic Tank Size 1500 gal.

Panel Volume N/A gal.
# of Panels N/A
Dosing Volume N/A gal.

Tank Draw Down N/A

Pump Run Time

Elevation Head N/A ft.
Pressure Head N/A ft.
Friction Factor N/A ft./100 ft. *(From the interpolater.)*
Friction Head N/A ft.

Total Dynamic Head (+15%) N/A ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 of 2
PROPERTY ID #: 96H9.73 411,159
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Anniston, LLC
ADDRESS: Anniston Lot 159
PROPOSED FACILITY: SFR
PROPOSED DESIGN FLOW (.1949): 600
LOCATION OF SITE:
APPLICATION DATE 10/3
DATE EVALUATED: 10/31/13
PROPERTY SIZE: ± 1.942
PROPERTY RECORDED:

WATER SUPPLY: ☑ Private ☐ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS (Soil Observed 10/31/13) .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 1 (35)	Sol 4/10%	0 - 3	B l sr	FrSSSPSEXP		48	–	–	PS 0.3
		3 - 11	BRc l wsbk	" " " "					
		11 - 30	RBc wmsbk	" " " "					
		30 - 42	Rc wmsbk	" " " "					
		42 - 48	RYcl wfsbk	" " " "	-Csap				
B 2	4/8%	0 - 3	B l sr	FrSSSPSEXP		48	–	–	PS 0.3
		3 - 10	BRc l wmsbk	" " " "					
		10 - 38	Rc wmsbk	" " " "					
		38 - 48	Rc l wfsbk	" " " "	-f-c sap				
3	4/14%	0 - 5	B l sr	FrSSSPSEXP		48	PS	– (CMF 10/31/13)	PS 0.3
		5 - 30	Rc wmsbk	FSSPSEXP	-f sap				
		30 - 46	Rc l wfsbk	FrSSSPSEXP	-c-m sap				
		46 - 48	va. l mass	" " " "					
4	4/19%	0 - 4	B l sr	FrSSSPSEXP		48	–	–	PS 0.3
		4 - 32	Rc wmsbk	FSSPSEXP					
		32 - 48	RYc l wfsbk	FrSSSPSEXP	-c sap				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Accepted	Accepted
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: S. Ashley Rollins
OTHER(S) PRESENT:

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 466497341.159
DATE OF EVALUATION: 9/10
COUNTY: Iredell

Lot 159

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B 5	L/25	0-10	BL.Gr	Fr SS SP SE NP					PS
		10-40	RC mmsbk	Fr SS SP SE NP					0.3
		40-50	RYCL wfsbk	Fr SS SP SE NP	f.exp	50	-	-	
B 6	L/24	0-12	BL. Gr	Fr SS SP SE NP					PS
		12-18	RBCL wfsbk	Fr SS SP SE NP					0.3
		18-50	RCL wmsbk	Fr SS SP SE NP		50	-	-	
B 7	L/23	0-6	BRL Gr	Fr SS SP SE NP					PS
		6-12	BRCL wsmsbk	Fr SS SP SE NP					0.3
		12-51	RC mmsbk	Fr SS SP SE NP		51	-	-	OK OM w/2/K
B 8	L/25	0-6	BL Gr	Fr SS SP SE NP					PS
		6-11	BRCL wsbk	Fr SS SP SE NP					0.3
		11-48	RC mmsbk	" " " "		48	-	-	
W									

COMMENTS: