OŠTEĆENOST ŠUMSKIH EKOSUSTAVA REPUBLIKE HRVATSKE

IZVJEŠĆE ZA 2012. GODINU

Nacionalni koordinacijski centar za procjenu i motrenje utjecaja atmosferskog onečišćenja i drugih čimbenika na šumske ekosustave

Hrvatski šumarski institut

Autori:

dr. sc. Nenad Potočić
dr. sc. Ivan Seletković
dr. sc. Boris Vrbek
dr. sc. Tamara Jakovljević
dr.sc. Hrvoje Marjanović
dr. sc. Krunoslav Indir
Maša Ostrogović, dipl. inž.

Jastrebarsko, siječanj 2013.

SADRŽAJ

Stranica

1. Uvod

S obzirom na stav da je najvažniji uzročnik propadanja šuma zračno onečišćenje, 1985. godine je u okviru Konvencije UN i Europske komisije o prekograničnom onečišćenju (CLRTAP) osnovan Međunarodni program za procjenu i motrenje utjecaja zračnog onečišćenja na šume (International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests, skraćeno ICP Forests). S vremenom se došlo do zaključka da i drugi čimbenici stresa mogu imati jednako značajan utjecaj na propadanje šuma, pa je glavni zadatak programa postao prikupljanje podataka o stanju šuma i njihovoj reakciji na čimbenike stresa na regionalnoj, nacionalnoj i internacionalnoj razini. Hrvatska sudjeluje u programu ICP Forests od 1987. godine, a od 2010. godine motrenje se obavlja prema Pravilniku o načinu motrenja oštećenosti šumskih ekosustava (Narodne novine 67/2010).

2. Rezultati motrenja na točkama Razine 1

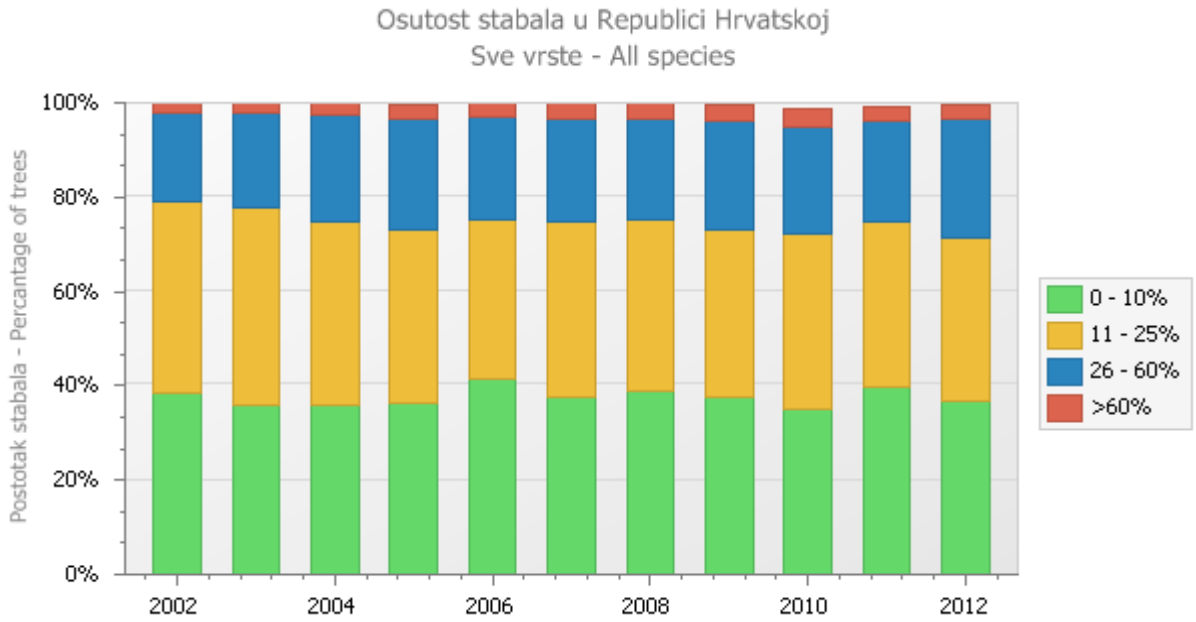
2.1. Oštećenost stabala u Republici Hrvatskoj 2012. godine

2012. godine u Hrvatskoj je po dvadeset i četvrti put provedena godišnja procjena oštećenosti šuma na bioindikacijskim točkama. Procjena je obavljena na 100 točaka, što je povećanje od 8 točaka u odnosu na prošlu godinu zahvaljujući radu na provjeri općih podataka o točkama. Procjenom je obuhvaćeno ukupno 2400 stabala različitih vrsta drveća, od čega 2031 stablo listača i 369 stabala četinjača.

2.1.1. Prikaz osutosti stabala u Republici Hrvatskoj – sve vrste

Tablica 2.1.1.1. Osutost stabala - sve vrste

Godina	0	1	2	3 + 4	Broj stabala	Značajno osuto
	% po stupnju osutosti					
	0 - 10%	11 - 25%	26 - 60%	> 60%	N	%
2002	38,53	40,42	19,06	1,99	1957	21,05
2003	36,06	41,60	20,20	2,14	1916	22,34
2004	36,07	38,79	22,65	2,48	2057	25,13
2005	36,44	36,58	23,69	3,30	2094	26,98
2006	41,45	33,84	21,84	2,87	2157	24,71
2007	37,41	37,17	21,93	3,49	2061	25,42
2008	39,02	36,26	21,13	3,59	2063	24,72
2009	37,42	35,80	23,00	3,78	2039	26,78
2010	35,07	37,00	22,92	5,01	2016	27,93
2011	39,76	34,84	21,63	3,77	2256	25,40
2012	36,62	34,92	25,21	3,25	2400	28,46



Grafikon 2.1.1.1. Osutost stabala - sve vrste

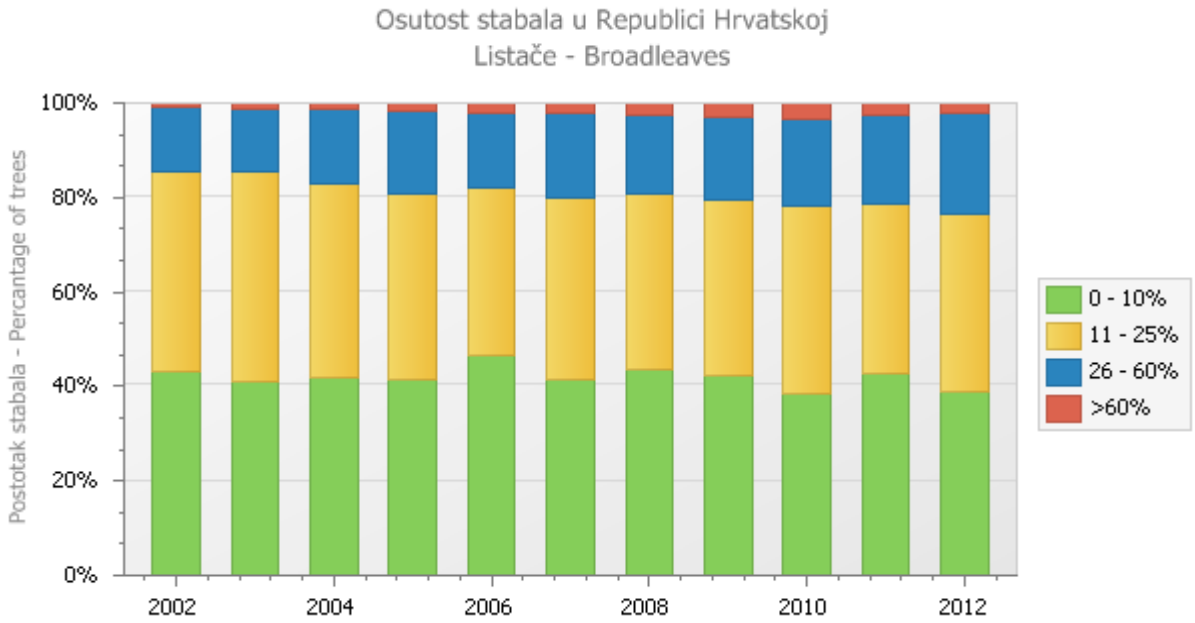
U procjeni stanja oštećenosti šumskih ekosustava provedenoj 2012. godine, utvrđeno je povećanje značajne osutosti u odnosu na 2011. godinu. Značajno osutih stabala u 2012. godini je 28,46 %. Najveći broj stabala i dalje se nalazi u klasama osutosti 0 i 1, dakle u klasama bez osutosti ili male osutosti.

2.1.2. Prikaz osutosti stabala u Republici Hrvatskoj – listače

Tablica 2.1.2.1. Osutost stabala – listače

Godina	0	1	2	3 + 4	Broj stabala	Značajno osuto
	% po stupnju osutosti					
	0 - 10%	11 - 25%	26 - 60%	> 60%	N	%
2002	43,30	42,30	13,39	1,00	1695	14,40
2003	41,16	44,34	13,30	1,20	1669	14,50
2004	41,79	41,21	15,57	1,43	1747	17,00
2005	41,61	39,22	17,34	1,83	1805	19,17
2006	46,77	35,17	16,09	1,98	1871	18,07
2007	41,61	38,48	17,62	2,29	1788	19,91
2008	43,50	37,17	16,89	2,44	1800	19,33
2009	42,12	37,27	17,74	2,87	1776	20,61
2010	38,53	39,62	18,23	3,61	1744	21,85
2011	42,64	35,81	18,91	2,65	1888	21,56
2012	38,95	37,37	21,47	2,22	2031	23,68

Značajna osutost listača je u odnosu na prošlu godinu povećana, te najveća u posljednjih 10 godina motrenja. Kod listača se najveći broj stabala nalazi se u klasi 0, a zatim u klasi 1, te 2 i 3+4.



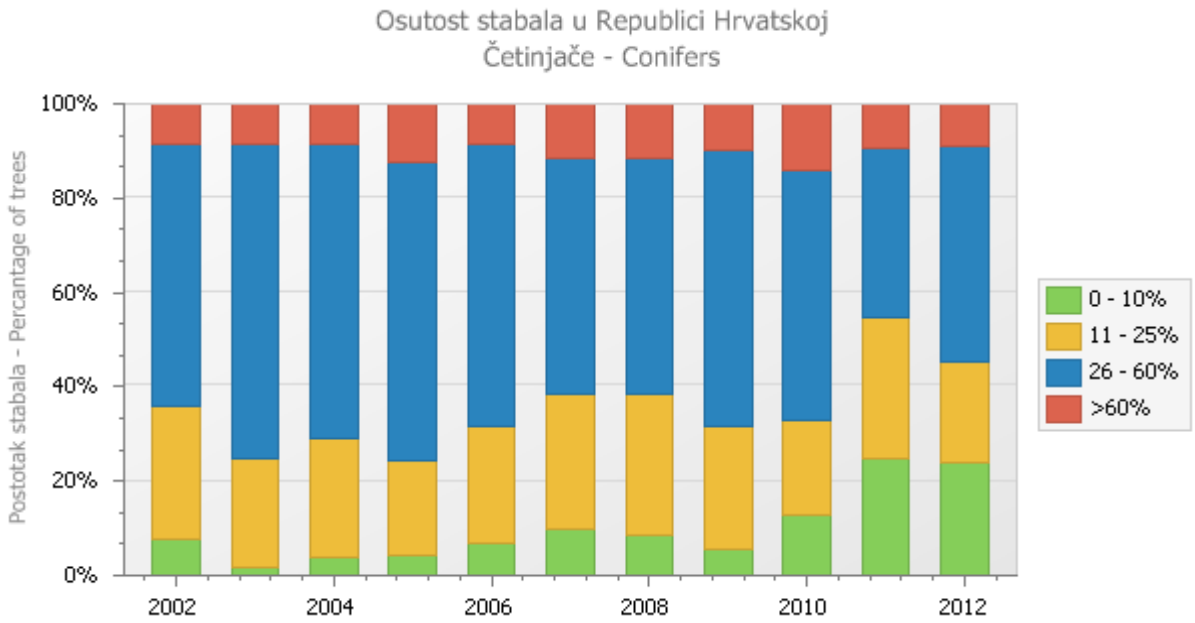
Grafikon 2.1.2.1. Osutost stabala - listače

2.1.3. Prikaz osutosti stabala u Republici Hrvatskoj – četinjače

Tablica 2.1.3.1. Osutost stabala – četinjače

Godina	0	1	2	3 + 4	Broj stabala	Značajno osuto
	% po stupnju osutosti					
	0 - 10%	11 - 25%	26 - 60%	> 60%	N	%
2002	7,63	28,24	55,73	8,40	262	64,12
2003	1,62	23,08	66,80	8,50	247	75,30
2004	3,87	25,16	62,58	8,39	310	70,97
2005	4,15	20,07	63,32	12,46	289	75,78
2006	6,64	25,17	59,44	8,74	286	68,18
2007	9,89	28,57	50,18	11,36	273	61,54
2008	8,37	30,04	50,19	11,41	263	61,60
2009	5,70	25,86	58,56	9,89	263	68,44
2010	12,87	20,22	52,94	13,97	272	66,91
2011	25,00	29,89	35,60	9,51	368	45,11
2012	23,85	21,41	45,80	8,94	369	54,74

Nakon niske vrijednosti dobivene u 2011. godini, ove je godine zabilježeno ponovno povećanje postotka značajne osutosti četinjača. Najveći broj stabala četinjača nalazi se u klasi oštećenosti 2 (26-60 % osutosti).



Grafikon 2.1.3.1. Osutost stabala - četinjače

2.1.4. Prikaz osutosti značajnijih vrsta šumskog drveća u Republici Hrvatskoj

Tablica 2.1.4.1. Oštećenost obične jele u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	3,12	15,62	63,54	17,71	81,25
2003	2,08	14,58	65,62	17,71	83,33
2004	1,04	12,50	68,75	17,71	86,46
2005	1,04	10,42	68,75	19,79	88,54
2006	5,21	23,96	53,12	17,71	70,83
2007	9,71	22,33	49,51	18,45	67,96
2008	8,25	21,65	52,58	17,53	70,10
2009	3,09	24,74	55,67	16,49	72,16
2010	11,93	22,02	48,62	17,43	66,06
2011	11,93	15,60	55,05	17,43	72,48
2012	11,01	21,10	52,29	15,60	67,89

Tablica 2.1.4.2. Oštećenost hrasta lužnjaka po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	36,94	46,94	14,72	1,39	16,11
2003	35,47	49,16	13,97	1,40	15,36
2004	38,44	44,62	16,40	0,54	16,94
2005	36,58	41,33	20,43	1,66	22,09
2006	47,27	31,83	20,19	0,71	20,90
2007	47,97	31,98	18,38	1,67	20,05
2008	41,50	36,28	20,18	2,04	22,22
2009	43,43	33,57	20,66	2,35	23,00
2010	40,05	33,96	22,48	3,51	26,00
2011	42,66	35,09	19,72	2,52	22,25
2012	41,72	30,47	25,56	2,25	27,81

Tablica 2.1.4.3. Oštećenost hrasta kitnjaka po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	10,27	60,00	28,11	1,62	29,73
2003	9,78	57,61	29,89	2,72	32,61
2004	11,83	53,23	31,18	3,76	34,95
2005	12,85	51,96	32,40	2,79	35,20
2006	29,61	51,40	16,20	2,79	18,99
2007	19,10	56,74	21,91	2,25	24,16
2008	16,57	55,80	25,97	1,66	27,62
2009	18,33	55,00	25,00	1,67	26,67
2010	27,49	38,60	28,65	5,26	33,92
2011	25,41	30,39	39,23	4,97	44,20
2012	17,22	44,44	36,11	2,22	38,33

Tablica 2.1.4.4. Oštećenost obične bukve po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	61,80	33,45	4,58	0,17	4,75
2003	56,72	38,22	4,54	0,52	5,06
2004	51,19	41,13	7,13	0,55	7,68
2005	50,98	41,86	6,80	0,36	7,16
2006	52,05	41,44	6,16	0,34	6,51
2007	47,64	44,38	7,43	0,54	7,97
2008	52,33	40,67	6,67	0,33	7,00
2009	52,25	39,79	6,57	1,38	7,96
2010	39,77	48,83	9,73	1,68	11,41
2011	45,92	40,27	12,65	1,16	13,81
2012	40,76	45,54	12,05	1,65	13,70

Tablica 2.1.4.5. Oštećenost alepskog bora po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	4,62	35,38	56,92	3,08	60,00
2003	1,54	21,54	73,85	3,08	76,92
2004	0,92	30,28	65,14	3,67	68,81
2005	2,30	14,94	80,46	2,30	82,76
2006	3,53	11,76	81,18	3,53	84,71
2007	4,92	22,95	62,30	9,84	72,13
2008	3,12	37,50	53,12	6,25	59,38
2009	1,54	18,46	78,46	1,54	80,00
2010	9,23	21,54	55,38	13,85	69,23
2011	36,25	38,75	20,00	5,00	25,00
2012	33,75	23,75	37,50	5,00	42,50

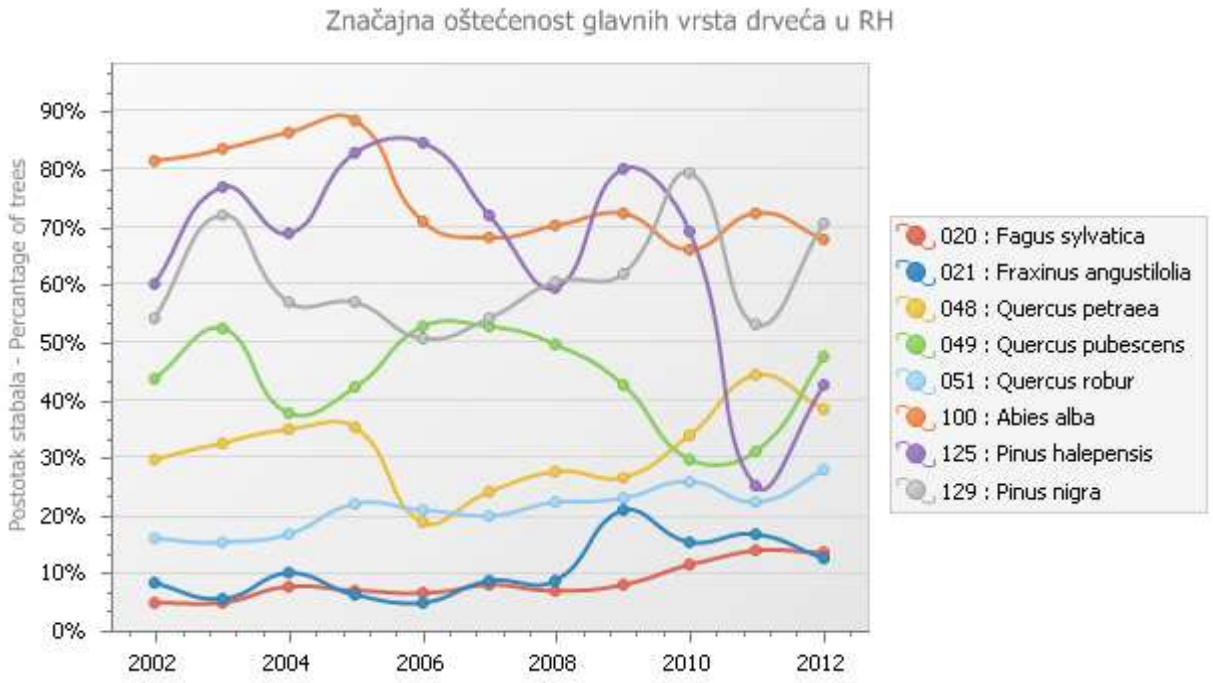
Tablica 2.1.4.6. Oštećenost crnog bora po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	13,58	32,10	50,62	3,70	54,32
2003	0,00	27,94	69,12	2,94	72,06
2004	8,64	34,57	51,85	4,94	56,79
2005	4,94	38,27	40,74	16,05	56,79
2006	7,41	41,98	45,68	4,94	50,62
2007	9,88	35,80	48,15	6,17	54,32
2008	9,88	29,63	50,62	9,88	60,49
2009	9,88	28,40	50,62	11,11	61,73
2010	2,94	17,65	64,71	14,71	79,41
2011	13,24	33,82	42,65	10,29	52,94
2012	13,24	16,18	60,29	10,29	70,59

Tablica 2.1.4.7. Oštećenost poljskog jasena po klasama osutosti u razdoblju od 2002. do 2012. godine

Godina	Kategorije osutosti, %				Značajno osuto
	0	1	2	3 + 4	2 + 3 + 4
2002	31,51	60,27	6,85	1,37	8,22
2003	31,51	63,01	5,48	0,00	5,48
2004	35,00	55,00	8,75	1,25	10,00
2005	45,68	48,15	4,94	1,23	6,17
2006	65,43	29,63	3,70	1,23	4,94
2007	58,02	33,33	8,64	0,00	8,64
2008	61,25	30,00	8,75	0,00	8,75
2009	44,44	34,72	18,06	2,78	20,83
2010	52,11	32,39	14,08	1,41	15,49
2011	49,30	33,80	15,49	1,41	16,90
2012	33,33	54,17	12,50	0,00	12,50

U Tablicama 2.1.4.1. do 2.1.4.7. dan je prikaz osutosti značajnijih vrsta šumskog drveća u Republici Hrvatskoj po klasama osutosti, prema procjeni za 2012. i proteklih 10 godina motrenja. Najvitalnija vrsta od prikazanih je poljski jasen s postotkom značajno osutih stabala od svega 12,50, slijedi obična bukva s 13,70 %. Zatim slijede hrast lužnjak (27,81%), hrast kitnjak s 38,33 %, alepski bor (42,50 %), a jako oštećene vrste su obična jela (značajna osutost 67,89 %) te crni bor (70,59 %). Znatnije promjene u odnosu na 2011. godinu su nastupile kod obične jele, čije se stanje poboljšalo, dok je kod crnog bora došlo do značajnog pogoršanja stanja.



Grafikon 2.1.4.1. Prikaz kretanja značajne osutosti (<25% osutosti) krošanja nekih vrsta šumskog drveća u Republici Hrvatskoj za razdoblje od 2002. do 2012. godine

2.2. Rezultati kontrolne procjene

Tablica 2.2.1.Popis točaka obuhvaćenih kontrolnom procjenom u 2011. godini

Broj točke	UŠP	Šumarija	Gospodarska jedinica, odjel, odsjek
146	Vinkovci	Otok	Otočke šume 2a
19	Delnice	Skrad	Čedanj 3b
123	Nova Gradiška	Nova Gradiška	Ključevi 22b
25	Gospić	Brinje	Javorov vrh 58a
75	Split	Split	Trogir Primošten, Blizna
142	Osijek	Valpovo	Valpovačke nizinske šume 17a
443	Koprivnica	Ivanec	Ravna Gora 16h
71	Sisak	Glina	Kobiljak 69a
138	Našice	Koška	Lacić- Glođe 4a
81	Zagreb	Novoselec	Žutica 56c

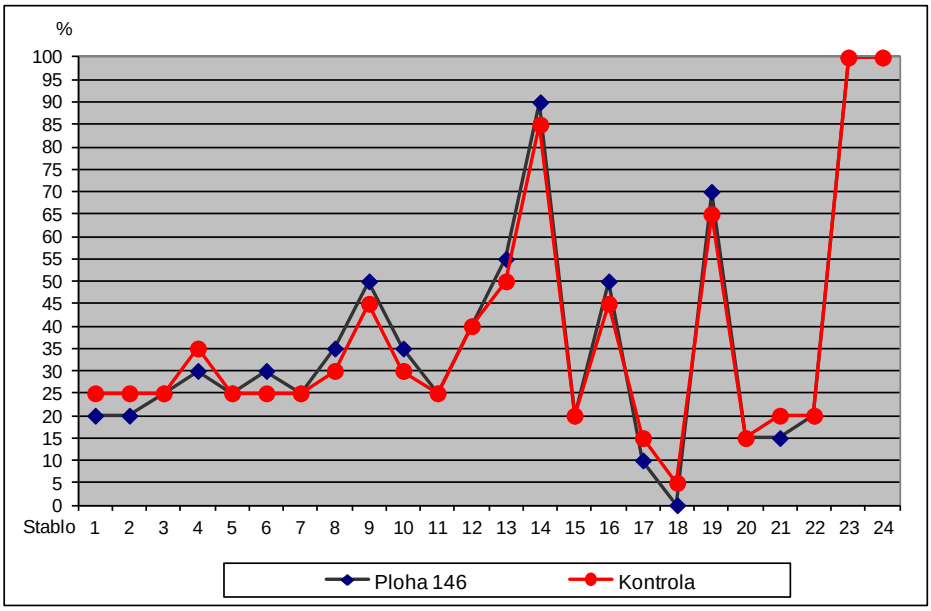
Na osnovi Članka 15. Pravilnika o načinu motrenja oštećenosti šumskih ekosustava (Narodne novine 67/2010), Nacionalni centar obavio je kontrolnu procjenu oštećenosti krošanja na 10 točaka bioindikacijske mreže. Na istim točkama obavljena je redovita procjena od strane ovlaštenih osoba za prikupljanje podataka o oštećenosti krošanja.

Rezultati redovne i kontrolne procjene prikazani su tablično i grafički za svaku točku. Iako su kod procjene pojedinačnih stabala zabilježena veća odstupanja, ta je pojava bila relativno rijetka, tako se da prosječno pozitivno ili negativno odstupanje po točki kreće od 0,4% do 2,5%. Smatramo kako ovi rezultati potvrđuju dobru osposobljenost procjenitelja. Unatoč tome, odstupanja koja su se pojavila pri procjeni pojedinih stabala, opravdavaju sistematično godišnje provođenje kalibracijskih tečajeva za procjenu oštećenosti krošanja.

Ploha 146

Tablica 2.2.2. Usporedba redovne i kontrolne procjene na plohi 146

Broj stabla	Ploha 146	Kontrola	Razlika
1	20	25	5
2	20	25	5
3	25	25	0
4	30	35	5
5	25	25	0
6	30	25	-5
7	25	25	0
8	35	30	-5
9	50	45	-5
10	35	30	-5
11	25	25	0
12	40	40	0
13	55	50	-5
14	90	85	-5
15	20	20	0
16	50	45	-5
17	10	15	5
18	0	5	5
19	70	65	-5
20	15	15	0
21	15	20	5
22	20	20	0
23	100	100	0
24	100	100	0
Prosjek	**37,7**	**37,3**	**-0,4**

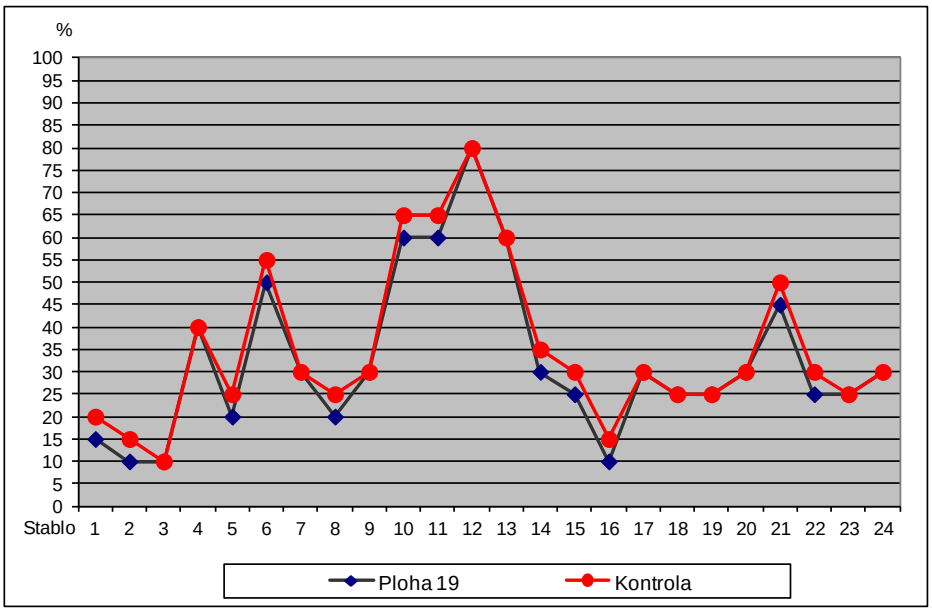


Grafikon 2.2.1. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 146

Ploha 19

Tablica 2.2.3. Usporedba redovne i kontrolne procjene na plohi 19

Broj stabla	Ploha 19	Kontrola	Razlika
1	15	20	5
2	10	15	5
3	10	10	0
4	40	40	0
5	20	25	5
6	50	55	5
7	30	30	0
8	20	25	5
9	30	30	0
10	60	65	5
11	60	65	5
12	80	80	0
13	60	60	0
14	30	35	5
15	25	30	5
16	10	15	5
17	30	30	0
18	25	25	0
19	25	25	0
20	30	30	0
21	45	50	5
22	25	30	5
23	25	25	0
24	30	30	0
Prosjek	**32,7**	**35,2**	**2,5**

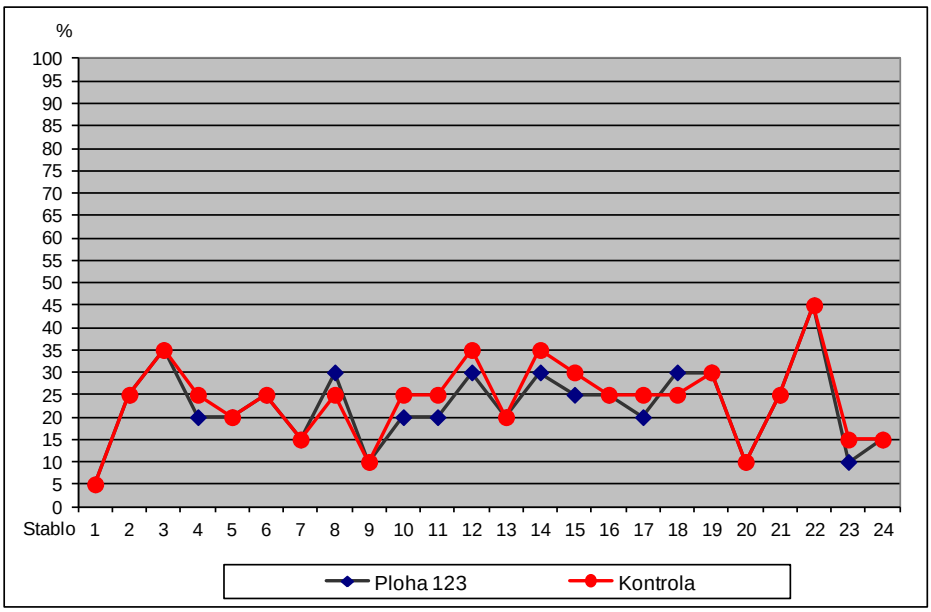


Grafikon 2.2.2. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 19

Ploha 123

Tablica 2.2.4. Usporedba redovne i kontrolne procjene na plohi 123

Broj stabla	Ploha 123	Kontrola	Razlika
1	5	5	0
2	25	25	0
3	35	35	0
4	20	25	5
5	20	20	0
6	25	25	0
7	15	15	0
8	30	25	-5
9	10	10	0
10	20	25	5
11	20	25	5
12	30	35	5
13	20	20	0
14	30	35	5
15	25	30	5
16	25	25	0
17	20	25	5
18	30	25	-5
19	30	30	0
20	10	10	0
21	25	25	0
22	45	45	0
23	10	15	5
24	15	15	0
Prosjek	**22,5**	**23,8**	**1,3**

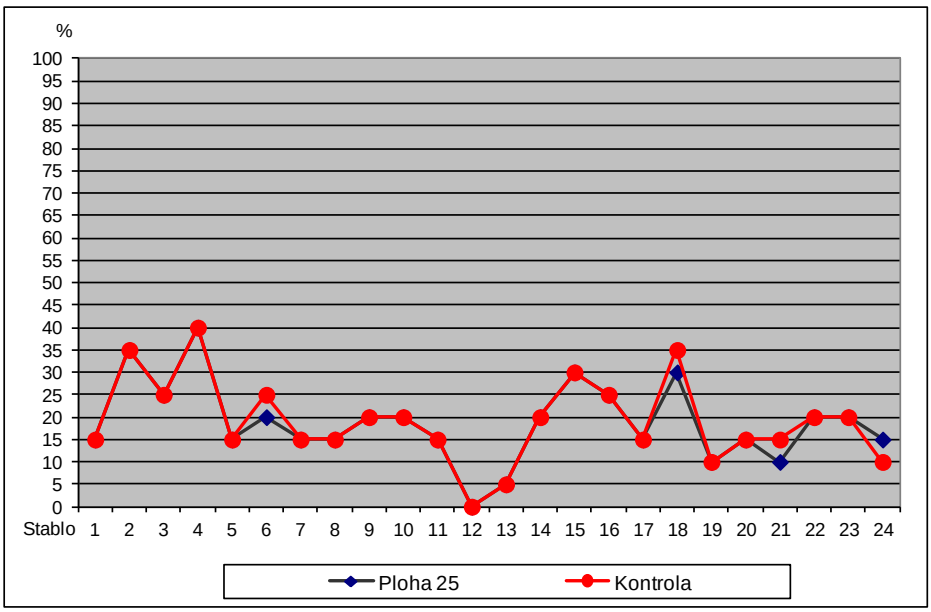


Grafikon 2.2.3. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 123

Ploha 25

Tablica 2.2.5. Usporedba redovne i kontrolne procjene na plohi 25

Broj stabla	Ploha 25	Kontrola	Razlika
1	15	15	0
2	35	35	0
3	25	25	0
4	40	40	0
5	15	15	0
6	20	25	5
7	15	15	0
8	15	15	0
9	20	20	0
10	20	20	0
11	15	15	0
12	0	0	0
13	5	5	0
14	20	20	0
15	30	30	0
16	25	25	0
17	15	15	0
18	30	35	5
19	10	10	0
20	15	15	0
21	10	15	5
22	20	20	0
23	20	20	0
24	15	10	-5
Prosjek	**18,8**	**19,2**	**0,4**

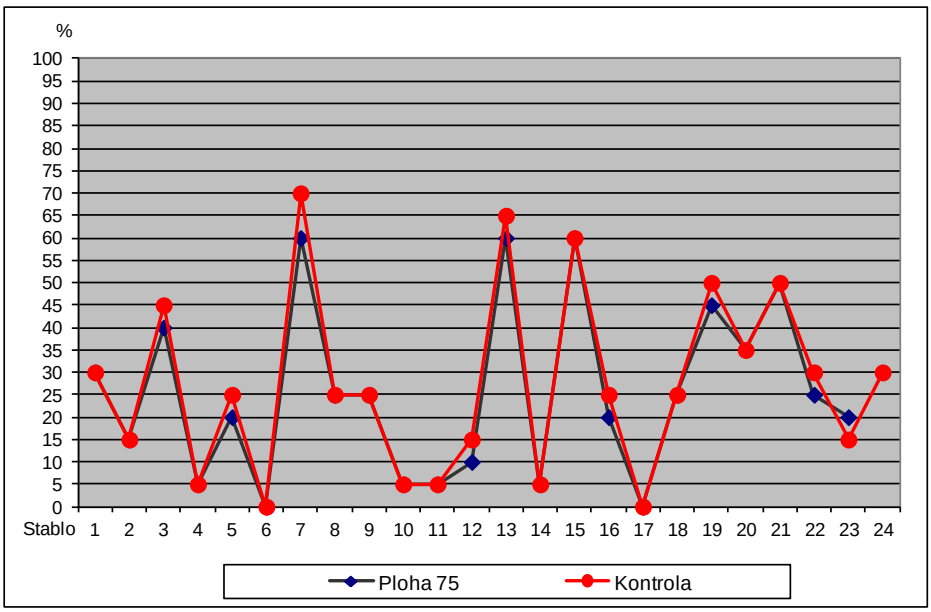


Grafikon 2.2.4. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 25

Ploha 75

Tablica 2.2.6. Usporedba redovne i kontrolne procjene na plohi 75

Broj stabla	Ploha 75	Kontrola	Razlika
1	30	30	0
2	15	15	0
3	40	45	5
4	5	5	0
5	20	25	5
6	0	0	0
7	60	70	10
8	25	25	0
9	25	25	0
10	5	5	0
11	5	5	0
12	10	15	5
13	60	65	5
14	5	5	0
15	60	60	0
16	20	25	5
17	0	0	0
18	25	25	0
19	45	50	5
20	35	35	0
21	50	50	0
22	25	30	5
23	20	15	-5
24	30	30	0
Prosjek	**25,6**	**27,3**	**1,7**

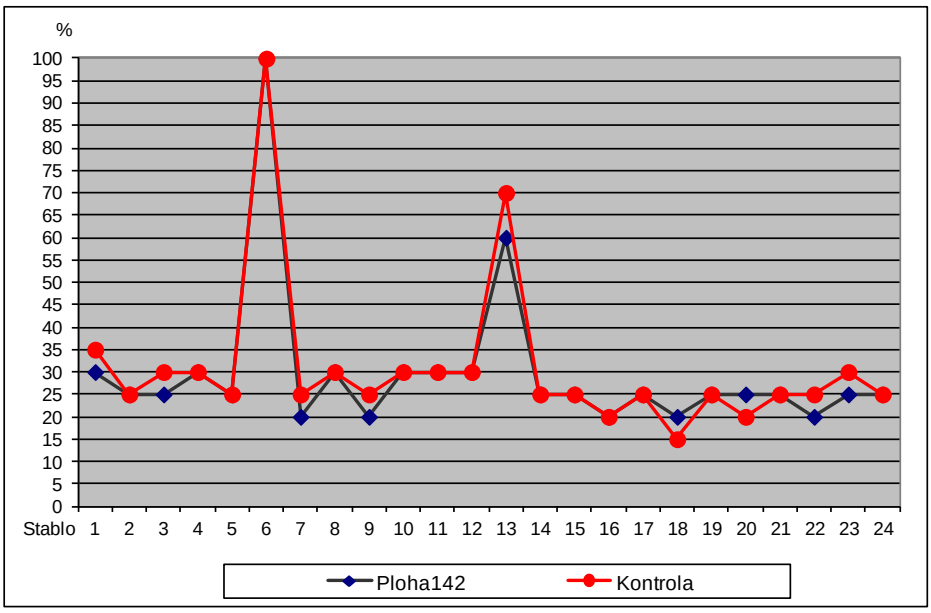


Grafikon 2.2.5. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 75

Ploha 142

Tablica 2.2.7. Usporedba redovne i kontrolne procjene na plohi 142

Broj stabla	Ploha142	Kontrola	Razlika
1	30	35	5
2	25	25	0
3	25	30	5
4	30	30	0
5	25	25	0
6	100	100	0
7	20	25	5
8	30	30	0
9	20	25	5
10	30	30	0
11	30	30	0
12	30	30	0
13	60	70	10
14	25	25	0
15	25	25	0
16	20	20	0
17	25	25	0
18	20	15	-5
19	25	25	0
20	25	20	-5
21	25	25	0
22	20	25	5
23	25	30	5
24	25	25	0
Prosjek	**29,8**	**31,0**	**1,3**

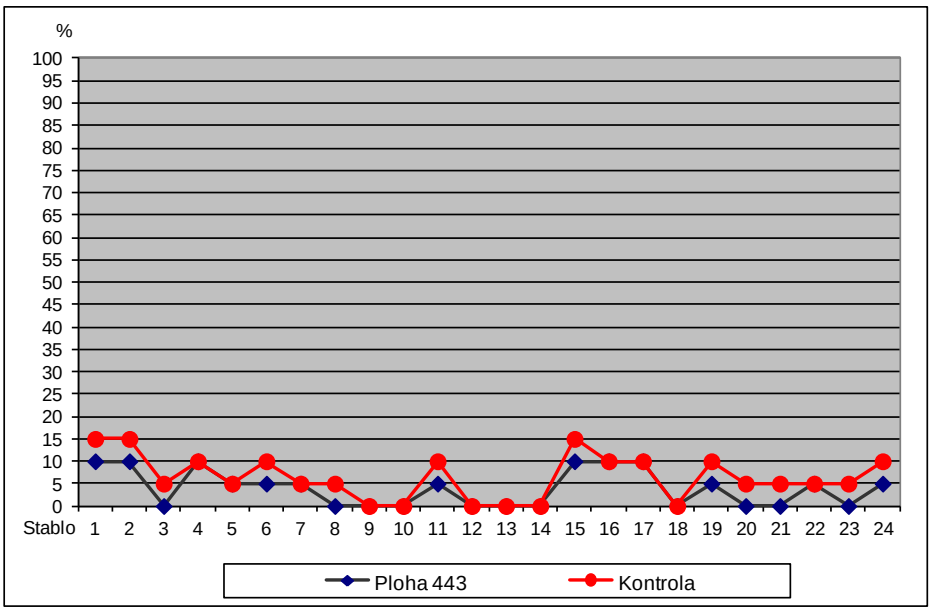


Grafikon 2.2.6. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 142

Ploha 443

Tablica 2.2.8. Usporedba redovne i kontrolne procjene na plohi 443

Broj stabla	Ploha 443	Kontrola	Razlika
1	10	15	5
2	10	15	5
3	0	5	5
4	10	10	0
5	5	5	0
6	5	10	5
7	5	5	0
8	0	5	5
9	0	0	0
10	0	0	0
11	5	10	5
12	0	0	0
13	0	0	0
14	0	0	0
15	10	15	5
16	10	10	0
17	10	10	0
18	0	0	0
19	5	10	5
20	0	5	5
21	0	5	5
22	5	5	0
23	0	5	5
24	5	10	5
Prosjek	**4,0**	**6,5**	**2,5**

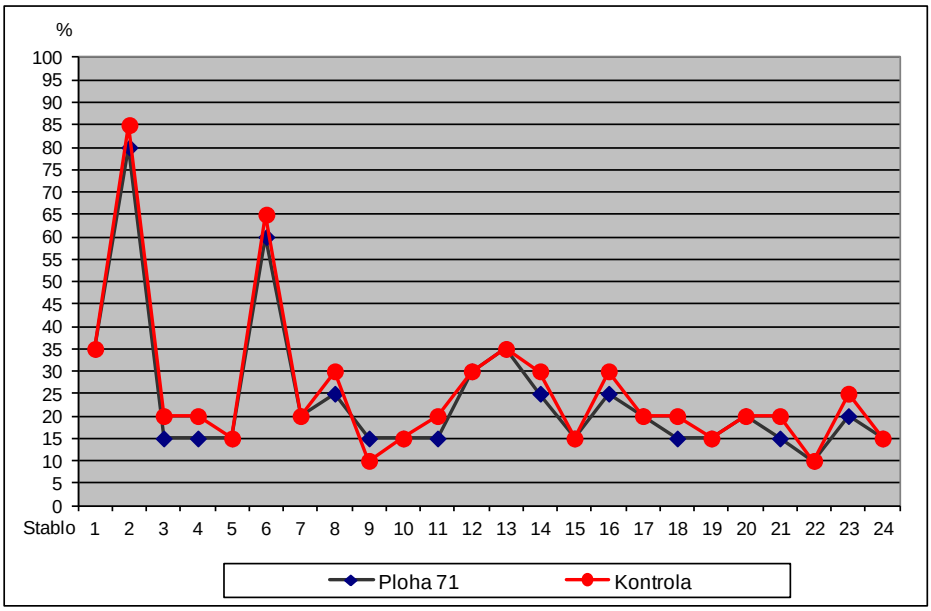


Grafikon 2.2.7. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 443

Ploha 71

Tablica 2.2.9. Usporedba redovne i kontrolne procjene na plohi 71

Broj stabla	Ploha 71	Kontrola	Razlika
1	35	35	0
2	80	85	5
3	15	20	5
4	15	20	5
5	15	15	0
6	60	65	5
7	20	20	0
8	25	30	5
9	15	10	-5
10	15	15	0
11	15	20	5
12	30	30	0
13	35	35	0
14	25	30	5
15	15	15	0
16	25	30	5
17	20	20	0
18	15	20	5
19	15	15	0
20	20	20	0
21	15	20	5
22	10	10	0
23	20	25	5
24	15	15	0
Prosjek	**23,8**	**25,8**	**2,1**

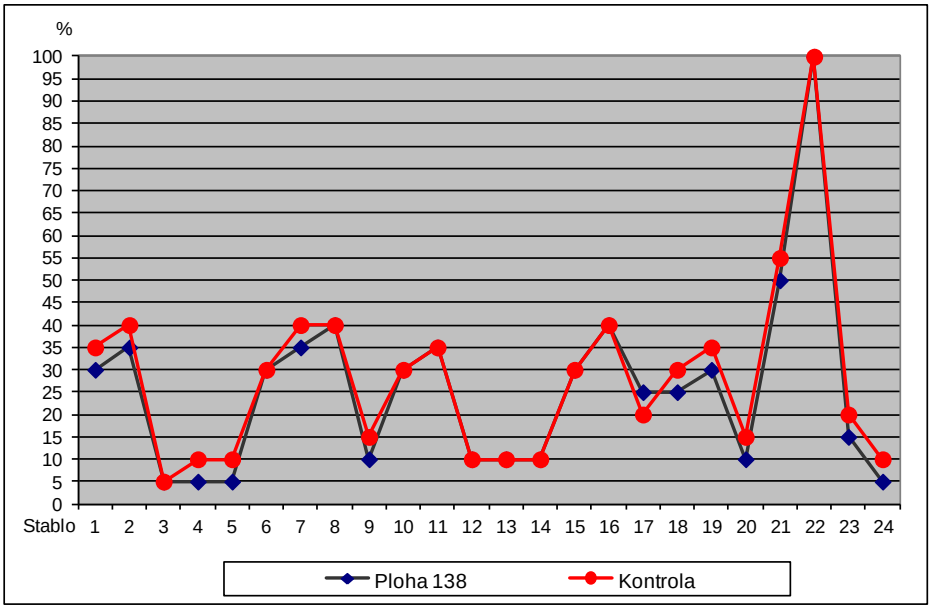


Grafikon 2.2.8. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 71

Ploha 138

Tablica 2.2.10. Usporedba redovne i kontrolne procjene na plohi 138

Broj stabla	Ploha 138	Kontrola	Razlika
1	30	35	5
2	35	40	5
3	5	5	0
4	5	10	5
5	5	10	5
6	30	30	0
7	35	40	5
8	40	40	0
9	10	15	5
10	30	30	0
11	35	35	0
12	10	10	0
13	10	10	0
14	10	10	0
15	30	30	0
16	40	40	0
17	25	20	-5
18	25	30	5
19	30	35	5
20	10	15	5
21	50	55	5
22	100	100	0
23	15	20	5
24	5	10	5
Prosjek	**25,8**	**28,1**	**2,3**

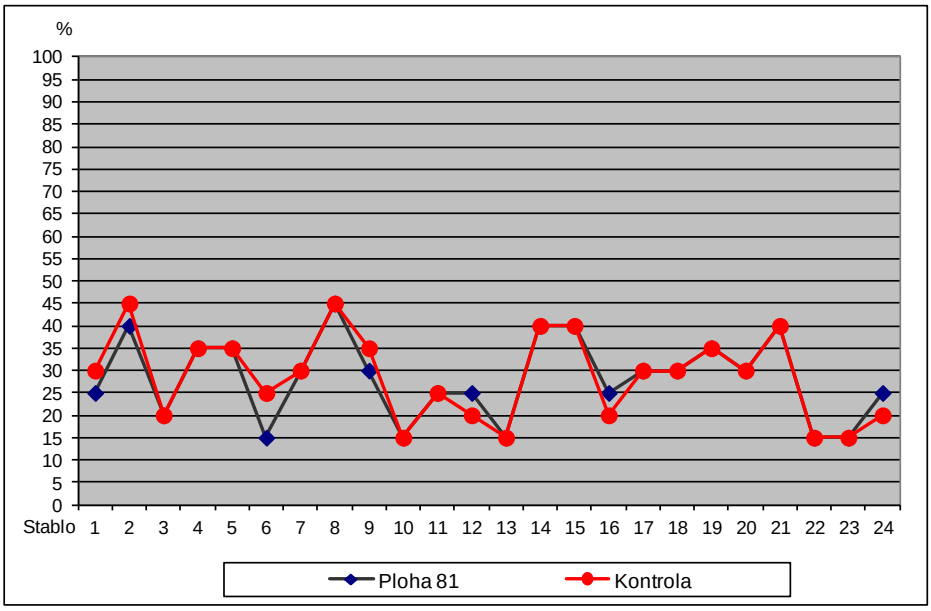


Grafikon 2.2.9. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 138

Ploha 81

Tablica 2.2.11. Usporedba redovne i kontrolne procjene na plohi 81

Broj stabla	Ploha 81	Kontrola	Razlika
1	25	30	5
2	40	45	5
3	20	20	0
4	35	35	0
5	35	35	0
6	15	25	10
7	30	30	0
8	45	45	0
9	30	35	5
10	15	15	0
11	25	25	0
12	25	20	-5
13	15	15	0
14	40	40	0
15	40	40	0
16	25	20	-5
17	30	30	0
18	30	30	0
19	35	35	0
20	30	30	0
21	40	40	0
22	15	15	0
23	15	15	0
24	25	20	-5
Prosjek	**28,3**	**28,8**	**0,4**



Grafikon 2.2.10. Grafički prikaz rezultata redovne i kontrolne procjene na plohi 81

2.3. Provjera i osvježavanje općih podataka o točkama

U provjere i osvježavanja općih podataka u 2012. godini u sklopu posjećene su bioindikacijske točke na području UŠP Karlovac, Koprivnica, Osijek, Split i Buzet. Na sastancima s predstavnicima poduzeća Hrvatske šume d.o.o. Zagreb iznesena je problematika motrenja oštećenosti krošanja na bioindikacijskim točkama, poteškoće na koje se nailazi na terenu, kao i potreba da se na terenu utvrdi točno stanje po pitanju lokacije i stanja točaka.

Na području UŠP Karlovac, Šumarija Cetingrad obiđena je točka 51 (GJ Strmačka 5c) gdje je utvrđeno kako je potrebno obnoviti plohu, te je dogovoreno kako će se stable obilježiti i staviti u plan procjene za 2013. godinu.

Na području Šumarije Koprivnica obiđena je točka broj 94 (GJ Dugačko brdo 48a), gdje je utvrđeno ispravno stanje u pogledu vrsta drveća.

U UŠP Osijek, Šumarija Đakovo, dane su smjernice za rekonstrukciju točke 143 (Đakovački lugovi I gajevi 99d) te je točka uključena u motrenje u tekućoj godini.

Na području UŠP Split, u Šumariji Šibenik utvrđene su koordinate za novopostavljenu točku broj 66 (Rimljača), te obiđene točke obnovljene u 2011. godini: 86 (Lećevica) i 102 (Omiš, Kusići) koja se nalazi u privatnoj šumi i posječena je 2012. godine.

U UŠP Buzet obiđeno je pet točaka bioindikacijske mreže koje su diskontinuirano praćene. Niti jednu točku nismo pronašli na terenu kako smo i očekivali, te shodno tome treba osnovati/obnoviti točke.

Točka 2 (Novigrad istarski): treba je osnovati u državnoj šumi, oko 100-200 m od teoretske točke. Pri obilježavanju stabala započeti s brojem 32, dakle stabla će imati brojeve 32 do 55. Vrste odgovaraju prijašnjem stanju, ali ne trebaju se točno podudarati po broju stabla.

Točka 5 (Sveti Petar u šumi, posječena 1998. godine): Na lokaciji postoji sastojina u kojoj je moguće obnoviti točku za praćenje. Potrebno je provjeriti vlasništvo, te eventualno kontaktirati vlasnika i upoznati ga s motrenjem. Obilježbu stabala treba započeti s brojem 42.

Točka 9 (Lesiščina – Lupoglav): Točku je potrebno osnovati u kulturi crnog bora. Prilikom osnivanja potrebno je prikupiti i opće podatke (koordinate, nadm. visina, gj, odjel, odsjek, starost, ekspozicija, inklinacija).

Točka 6 (Manjadvorci): u državnoj šumi treba obilježiti 24 stabla, početi s rednim brojem 31 (nije potrebno paziti na vrste), snimiti koordinate i javiti točan naziv lokaliteta.

Točka 12 (Brgudske šume): Početi obilježavanje od broja 33, (nije potrebno paziti na vrste), snimiti koordinate i javiti točan naziv lokaliteta.

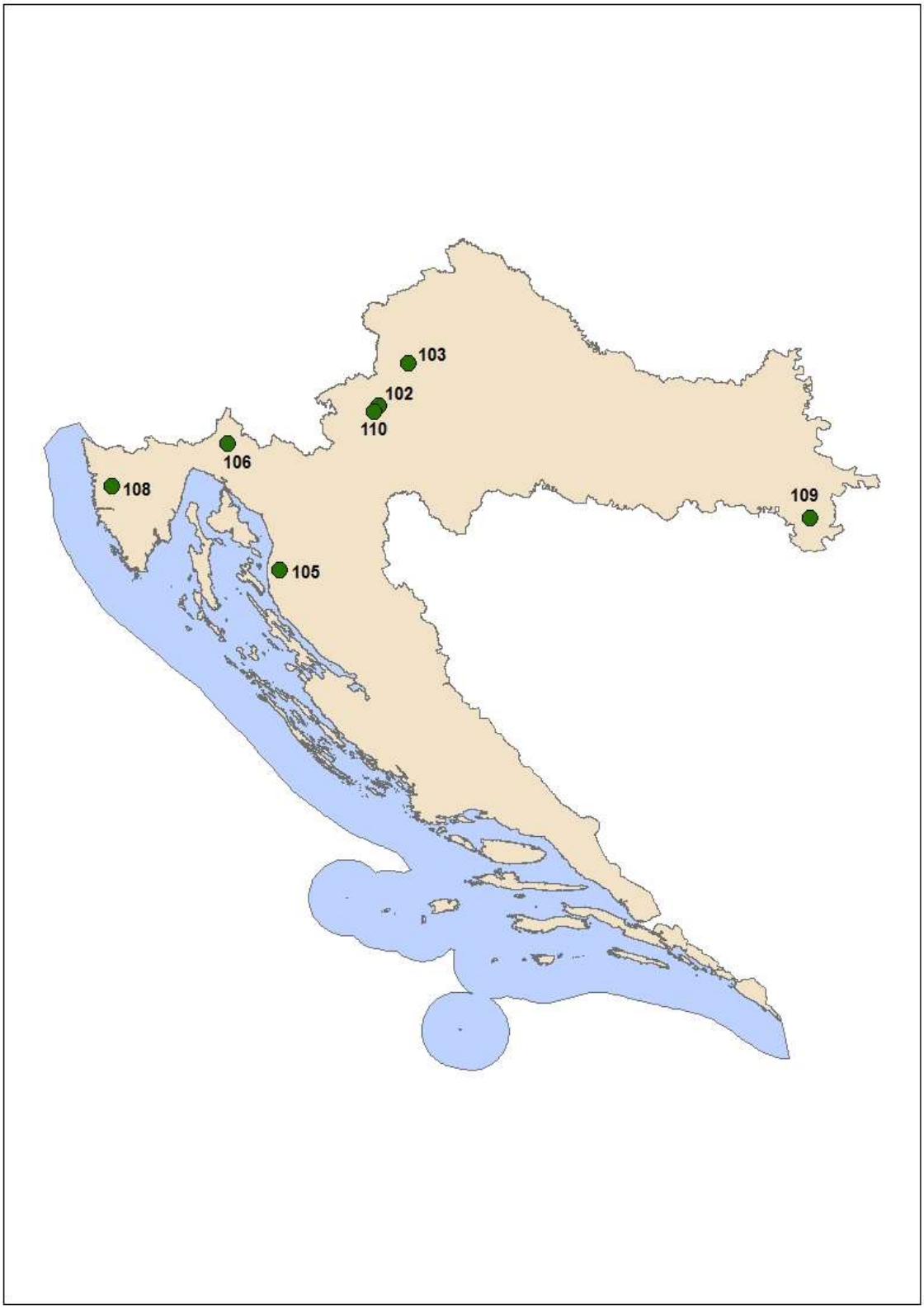
Za sve točke dogovoreno je da radovi završe tako da točke budu spremne za procjenu u 2013. godini.

3. Rezultati motrenja na plohama Razine 2

3.1. Opći podaci o plohama

Tablica 3.1.1. Opći podaci o plohama Razine 2

redni broj	ploha	zemljopisna širina	zemljopina dužina	Naziv plohe	Lokalitet
1	102	+454046	+153805	Gović	Šumarija Jastrebarsko, GJ Jastrebarske prigorske šume 37c
2	103	+455403	+155722	Sljeme	Šumarija Zagreb, GJ Sljeme-Medvedgradske šume 6b
3	105	+444859	+145852	Zavižan	NP Sjeverni Velebit
4	106	+452853	+143529	Lividraga	Šumarija Gerovo, GJ Lividraga, odjel 72
5	108	+451459	+134354	Poreč	Šumarija Poreč, GJ Dubrava 57f
6	109	+450122	+185538	Vrbanja	Šumarija Vrbanja, GJ Vrbanjske šume 107b
7	110	+453842	+154134	Jastrebarski lugovi	Šumarija Jastrebarsko, GJ Jastrebarski lugovi 8b



Slika 3.1.1. Zemljopisni položaj ploha Razine 2

Ploha 102 površine je 1 ha, jedna je od 100 trajnih ploha Republike Hrvatske „Čovjek i biosfera". Nalazi se u čistoj sastojini hrasta kitnjaka iz sjemena starosti 150 godina. Šumska zajednica je šuma kitnjaka i običnog graba, EGT II-E-10. Stabla kitnjaka su dobre kakvoće. Sklop je nepotpun pa je pojedinačno razvijen predrast običnog graba. Tlo je pseudoglej obronačni. Ploha je južne ekspozicije i smještena na bilu nadmorske visine 180-190 m, blagog nagiba. Drvna zaliha je 481m^3/ha. Na plohi se provode istraživanja stanja oštećenosti krošanja i kemizma biljnog materijala.

Ploha 103 površine je 1 ha, i također je jedna je od 100 trajnih ploha Republike Hrvatske „Čovjek i biosfera". Nalazi se u sastojini bukve i jele, šumska zajednica je Abieti-Fagetum „pannonicum". Trenutačno se sastojina nalazi u stanju odumiranja starih stabala jele, a ispod gotovo čiste bukove nadstojne etaže obilno se javlja pomladak obične jele. Sklop je nepotpun. Tlo je distrični kambisol na podlozi škriljavaca. Ploha ima južnu ekspoziciju i smještena je na nadmorskoj visini 980 m, nagib je umjeren. Drvna zaliha je 553 m^3/ha. Na plohi se provode istraživanja stanja oštećenosti krošanja, kemizma biljnog materijala, depozicije, oštećenja od ozona (vizualni simptomi i pasivni uzorkivač za ozon) te sastava otopine tla, a u planu je osnivanje potplohe za praćenje bioraznolikosti.

Ploha 105 površine je 1 ha, smještena je unutar područja Nacionalnog parka Sjeverni Velebit. Ploha se nalazi u pretplaninskoj bukovoj šumi s primjesom obične smreke. Sklop je nepotpun. Ploha ima sjeverozapadnu ekspoziciju, nadmorska visina je 1300-1350 m, nagib je umjeren. Na plohi se provode istraživanja stanja oštećenosti krošanja i kemizma biljnog materijala.

Ploha 106 površine je 1 ha. Nalazi se u sastojini bukve i jele, šumska zajednica je Abieti-Fagetum „dinaricum". Raznodobna sjemenjača bukve i jele sa stablimičnim učešćem javora i smreke, preborne distribucije stabala. Sastojina je lijepog izgleda i dobrog zdravstvenog stanja, dobro pomlađena običnom bukvom raznih razvojnih stadija. Tlo je smeđe tlo na vapnencu i dolomitu, u podlozi je morenski nanos. Nadmorska visina je 940-950 m, ekspozicija jugoistočna, nagib vrlo blag. Sklop je potpun. Drvna zaliha je 711 m^3/ha. Na plohi se provode istraživanja stanja oštećenosti krošanja i kemizma biljnog materijala.

Ploha 108 površine je 0,5 ha. Mlada (40 godina), gotovo čista panjača hrasta medunca s primjesom crnog jasena, bjelograbića i maklena, fitocenoza mješovita šuma medunca i bijelog graba, EGT III-K-10a, dobre kakvoće i većim dijelom potpunog sklopa. Sastojina je neujednačena; niži, južni dijelovi odsjeka koji su zaravnjeni, najbolje su kakvoće. Na grebenu sastojina je lošija. Drvna zaliha iznosi 182 m^3/ha. Tlo je smeđe tlo na vapnencu i dolomitu. Ekspozicija je jugoistočna, nagib blag, nadmoska visina 220-240 m. Na plohi se provode istraživanja stanja oštećenosti krošanja, kemizma biljnog materijala, praćenje depozicije i sastava otopine tla. U planu je osnivanje potplohe za praćenje bioraznolikosti.

Ploha 109 površine je 1 ha. Sjemenjača hrasta lužnjaka potpunog sklopa, obrasla grmljem 0,4 do 0,5, stablimične strukture, dvoetažna, dobrog do vrlo dobrog izgleda i dobre kakvoće te donekle narušenog zdravstvenog stanja. Pripada šumskoj zajednici Carpino betuli – Quercetum roboris typicum, EGT II-G-10. Starost sastojine je 97 godina, nadmorska visina je 81-82 m, tip tla je hipoglej karbonatni. Drvna zaliha je 507 m^3/ha. Na plohi se provode istraživanja stanja oštećenosti krošanja, kemizma biljnog materijala i praćenje depozicije, a u planu je osnivanje potplohe za praćenje bioraznolikosti.

Ploha 110 površine je 1 ha. Stara čista sastojina lužnjaka iz sjemena, dobre kakvoće i s obzirom na starost, dobrog zdravstvenog stanja. U sastojini je velik udio običnog graba u podstojnoj etaži, dok je sloj grmlja slabo razvijen. Tlo je pseudoglej-glej. Nadmorska visina plohe je 119 m, teren je ravan. Drvna zaliha iznosi 498 m^3/ha. Na plohi se provode istraživanja stanja oštećenosti krošanja, kemizma biljnog materijala, količine i kemijskog sastava otpada sa stabala, fenologije, praćenje meteoroloških podataka (izvan sastojine), depozicije i sastava otopine tla, a u planu je osnivanje potplohe za praćenje bioraznolikosti i praćenje meteoroloških parametara unutar sastojine.

Slika 3.1.1. Ploha intenzivnog motrenja broj 103 (Sljeme)

Slika 3.1.2. Ploha intenzivnog motrenja broj 105 (Zavižan)

Slika 3.1.3. Ploha intenzivnog motrenja broj 108 (Poreč)

Slika 3.1.4. Ploha intenzivnog motrenja broj 109 (Vrbanja)

Slika 3.1.5. Ploha intenzivnog motrenja broj 110 (Jastrebarski lugovi)

3.2. Stanje oštećenosti krošanja

Procjena oštećenosti krošanja u 2012. je godini obavljena na svih sedam ploha intenzivnog motrenja prema Tablici 3.2.1.

Tablica 3.2.1. Plohe intenzivnog motrenja na kojima je procijenjena oštećenost krošanja (572012.plt)

redni broj	zemlja	ploha	datum	zemljopisna širina	zemljopina dužina	nadm. visina	Oznaka tima	starost sastojine
1	57	102	050912	+454046	+153805	4	00001	07
2	57	103	040912	+455403	+155722	20	00001	08
3	57	105	310712	+444859	+145852	31	00001	04
4	57	106	081112	+452853	+143529	19	00001	08
5	57	108	020812	+451459	+134354	5	00001	03
6	57	109	270712	+450122	+185538	3	00001	05
7	57	110	100912	+453842	+154134	3	00001	07

Tablica 3.2.2. Procjena oštećenosti krošanja na plohama intenzivnog motrenja (572012.trc)

red.broj	ploha	datum	stablo	vrsta	mort.	soc.klasa	zasj.	vid.	osutost	gubitak boje	sekund.
1	102	050912	3	48	01	2	2	1	40	0	3
2	102	050912	32	48	01	3	4	2	30	0	3
3	102	050912	34	48	01	2	4	2	40	0	3
4	102	050912	35	48	01	2	1	2	50	0	3
5	102	050912	38	48	01	2	2	1	25	0	2
6	102	050912	39	48	01	2	1	1	25	0	3
7	102	050912	41	48	01	2	1	1	35	0	3
8	102	050912	42	48	01	2	2	1	35	0	2
9	102	050912	43	48	01	2	1	1	30	0	2
10	102	050912	48	48	01	2	1	2	30	0	2
11	102	050912	49	48	01	2	1	1	40	0	2
12	102	050912	50	48	01	3	5	1	30	0	3
13	102	050912	51	48	01	2	5	1	30	0	3
14	102	050912	54	48	01	2	1	1	25	0	2
15	102	050912	55	48	01	2	5	1	30	0	3
16	102	050912	57	48	01	2	2	1	35	0	3
17	102	050912	58	48	01	2	1	1	35	0	3
18	102	050912	60	48	01	3	2	1	35	0	3
19	102	050912	62	48	01	2	1	1	25	0	3
20	102	050912	63	48	01	2	1	1	25	0	2
21	102	050912	64	48	01	2	2	1	30	0	2
22	102	050912	65	48	01	2	2	1	35	0	2
23	102	050912	68	48	01	2	1	1	35	0	3
24	102	050912	69	48	38	3	2	1	100	0	3
25	102	050912	70	48	01	2	1	2	20	0	3
26	102	050912	71	48	01	2	2	1	40	0	3
27	102	050912	72	48	01	2	1	1	25	0	2
28	102	050912	73	48	01	2	3	1	25	0	3
29	102	050912	74	48	01	2	2	1	35	0	3
30	102	050912	75	48	01	3	2	1	25	0	2
31	102	050912	77	48	01	2	1	1	25	0	2
32	102	050912	78	48	01	2	5	1	25	0	3
33	102	050912	79	48	01	2	2	1	30	0	2
34	102	050912	80	48	01	2	2	1	45	0	2
35	102	050912	81	48	01	2	3	3	99	0	3
36	102	050912	83	48	01	1	1	1	30	0	2
37	102	050912	84	48	01	2	2	2	25	0	2
38	102	050912	85	48	01	2	1	1	20	0	3
39	102	050912	86	48	01	2	2	2	30	0	3
40	102	050912	87	48	01	2	2	1	30	0	3
41	102	050912	89	48	01	2	2	1	50	0	2
42	102	050912	90	48	01	2	3	1	80	0	3
43	102	050912	91	48	01	2	1	1	35	0	3

44	102	050912	100	48	01	2	1	1	25	0	3
45	102	050912	104	48	01	2	1	1	40	0	3
1	103	040912	298	20	01	2	1	1	30	0	1
2	103	040912	89	20	01	2	1	1	35	0	1
3	103	040912	285	20	01	2	2	1	35	0	1
4	103	040912	296	20	01	2	1	1	25	0	1
5	103	040912	310	100	01	1	5	1	35	0	1
6	103	040912	323	100	01	1	1	1	35	0	1
7	103	040912	70	20	01	2	2	2	25	0	1
8	103	040912	123	20	01	3	3	1	20	0	1
9	103	040912	61	20	01	2	4	2	30	0	3
10	103	040912	173	20	01	3	1	1	25	0	1
11	103	040912	58	20	01	2	3	1	45	0	1
12	103	040912	46	20	01	2	3	1	20	0	2
13	103	040912	42	20	01	2	1	1	20	0	2
14	103	040912	59	20	01	2	2	1	20	0	1
15	103	040912	22	20	01	2	2	2	20	0	1
16	103	040912	21	20	01	2	2	1	30	0	1
17	103	040912	19	20	01	2	2	2	20	0	1
18	103	040912	171	100	01	2	5	1	25	0	1
19	103	040912	5	20	38	3	1	3	100	0	1
20	103	040912	6	20	01	3	3	3	25	0	2
21	103	040912	115	20	01	2	1	2	20	0	1
22	103	040912	7	20	01	3	3	3	20	0	1
23	103	040912	8	100	01	3	2	3	20	0	1
24	103	040912	118	100	01	2	1	2	30	0	1
25	103	040912	104	20	01	2	2	2	25	0	2
26	103	040912	125	20	01	2	2	2	10	0	2
27	103	040912	90	20	01	2	1	1	30	0	1
28	103	040912	139	100	01	2	1	1	35	0	2
29	103	040912	126	20	01	3	1	1	15	0	1
30	103	040912	32	20	01	2	2	1	25	0	1
31	103	040912	29	20	01	2	2	1	25	0	2
32	103	040912	47	20	01	2	5	1	35	0	1
33	103	040912	43	20	01	3	2	2	60	0	2
34	103	040912	44	20	01	3	3	1	25	0	2
35	103	040912	45	20	01	2	1	2	25	0	2
36	103	040912	40	20	01	1	1	1	25	0	1
37	103	040912	122	20	01	1	1	1	25	0	1
38	103	040912	165	20	01	2	2	3	45	0	2
39	103	040912	164	20	01	2	1	1	45	0	1
40	103	040912	34	20	01	3	1	1	25	0	2
41	103	040912	163	20	01	2	1	1	25	0	1
42	103	040912	60	20	01	2	3	1	30	0	1
43	103	040912	336	100	01	2	1	1	20	0	1
44	103	040912	168	20	01	2	1	2	25	0	1
45	103	040912	166	20	01	2	3	2	30	0	1

1	105	310712	4	20	01	2	1	1	25	0	2
2	105	310712	17	20	01	2	1	1	95	0	2
3	105	310712	21	20	01	2	2	1	60	0	1
4	105	310712	34	20	01	3	2	1	20	0	1
5	105	310712	36	20	01	2	2	1	40	0	1
6	105	310712	44	20	01	3	3	1	25	0	1
7	105	310712	45	118	01	1	5	1	15	0	2
8	105	310712	46	20	01	2	1	1	35	0	2
9	105	310712	47	20	01	2	1	1	40	0	2
10	105	310712	48	20	01	2	1	1	35	0	1
11	105	310712	49	118	01	3	4	1	45	0	1
12	105	310712	50	118	01	1	5	1	25	0	2
13	105	310712	52	20	01	2	1	1	30	0	2
14	105	310712	54	20	01	2	1	1	5	0	2
15	105	310712	62	20	01	2	2	1	40	0	2
16	105	310712	67	20	01	2	1	1	20	0	1
17	105	310712	70	20	01	2	4	1	25	0	2
18	105	310712	72	118	01	3	4	1	30	0	1
19	105	310712	78	20	01	2	3	1	90	0	2
20	105	310712	82	20	01	2	1	1	5	0	2
21	105	310712	85	118	01	1	5	1	35	0	2
22	105	310712	87	118	01	1	5	1	10	0	3
23	105	310712	90	20	01	2	3	1	20	0	2
24	105	310712	93	118	01	1	5	1	20	0	2
25	105	310712	94	118	01	3	4	1	70	0	1
26	105	310712	95	118	01	2	5	1	15	0	3
27	105	310712	104	20	01	3	3	1	30	0	2
28	105	310712	109	20	01	2	3	1	90	0	1
29	105	310712	134	20	01	2	1	1	95	0	2
30	105	310712	155	20	01	2	5	1	35	0	1
31	105	310712	158	20	01	2	1	1	50	0	1
32	105	310712	160	20	01	2	3	1	65	0	1
33	105	310712	163	20	01	2	2	1	55	0	2
34	105	310712	167	20	01	2	2	1	25	0	2
35	105	310712	170	20	01	2	1	1	95	0	1
36	105	310712	182	118	31	2	1	1	100	0	
37	105	310712	185	118	31	2	5	1	100	0	
38	105	310712	186	118	31	1	5	1	100	0	
39	105	310712	190	118	01	1	5	1	15	0	2
40	105	310712	193	20	01	2	1	1	65	0	1
41	105	310712	195	118	01	1	5	1	20	0	2
42	105	310712	224	118	01	2	5	1	20	0	2
43	105	310712	226	20	01	2	3	1	15	0	1
44	105	310712	240	20	01	2	1	1	90	0	1
45	105	310712	249	118	31	1	5	1	100	0	1
46	105	310712	252	118	01	2	2	1	15	0	2
47	105	310712	277	20	01	2	5	1	95	0	1

48	105	310712	286	20	01	2	5	1	90	0	1
49	105	310712	299	20	01	2	2	1	95	0	2
50	105	310712	310	20	01	3	4	1	85	0	2
51	105	310712	385	118	01	2	5	1	15	0	2
52	105	310712	393	20	1	2	1	1	25	0	2
53	105	310712	403	20	01	2	1	1	45	0	1
54	105	310712	409	118	01	3	3	1	25	0	1
55	105	310712	422	118	01	2	1	1	35	0	2
56	105	310712	432	20	01	2	1	1	85	0	1
57	105	310712	436	20	01	2	2	1	20	0	1
58	105	310712	440	20	01	3	3	1	45	0	2
59	105	310712	443	118	31	1	5	1	100	0	2
60	105	310712	446	20	01	2	3	1	45	0	2
61	105	310712	449	118	01	1	5	1	15	0	3
62	105	310712	461	118	01	1	5	1	35	0	2
1	106	081112	31	100	01	2	5	1	30	0	2
2	106	081112	16	100	01	2	5	1	20	0	1
3	106	081112	35	100	01	2	1	1	25	0	2
4	106	081112	49	100	01	2	5	1	35	0	1
5	106	081112	48	100	01	2	5	2	25	0	1
6	106	081112	51	100	01	2	5	2	25	0	1
7	106	081112	53	100	01	2	2	2	35	0	2
8	106	081112	54	100	01	2	5	1	20	0	1
9	106	081112	55	100	01	2	5	1	10	0	1
10	106	081112	56	100	01	3	2	2	25	0	1
11	106	081112	57	100	01	3	2	2	25	0	1
12	106	081112	60	100	01	2	5	1	15	0	1
13	106	081112	61	100	01	2	5	1	30	0	1
14	106	081112	62	100	01	2	5	1	5	0	1
15	106	081112	78	100	01	2	1	1	30	0	1
16	106	081112	82	100	01	2	1	2	15	0	1
17	106	081112	85	100	01	2	1	2	30	0	1
18	106	081112	86	100	01	3	1	1	30	0	1
19	106	081112	87	100	01	2	5	1	30	0	1
20	106	081112	88	100	01	2	1	1	25	0	1
21	106	081112	95	100	01	2	1	2	25	0	1
22	106	081112	96	100	38	1	5	2	100	0	1
23	106	081112	97	100	01	2	1	2	35	0	1
24	106	081112	98	100	01	2	5	1	30	0	1
25	106	081112	99	100	01	2	2	2	10	0	1
26	106	081112	101	100	01	2	1	3	10	0	1
27	106	081112	102	100	01	3	1	1	10	0	1
28	106	081112	103	100	01	1	5	1	10	0	1
29	106	081112	107	100	01	2	1	1	35	0	1
30	106	081112	128	100	01	2	1	2	30	0	1
31	106	081112	129	100	01	3	3	2	30	0	1
32	106	081112	132	100	01	3	3	2	20	0	2

33	106	081112	133	100	01	2	5	2	25	0	2
34	106	081112	134	100	01	3	2	2	50	0	1
35	106	081112	135	100	01	2	1	1	25	0	2
36	106	081112	136	100	01	3	1	1	30	0	1
37	106	081112	137	100	01	2	1	2	40	0	1
38	106	081112	138	100	01	2	5	2	25	0	1
39	106	081112	141	100	01	2	5	1	15	0	1
40	106	081112	142	100	01	1	5	2	30	0	1
41	106	081112	143	100	01	3	1	2	80	0	2
42	106	081112	144	100	01	3	1	2	25	0	2
43	106	081112	151	100	01	1	5	2	35	0	1
44	106	081112	152	100	01	3	1	2	15	0	1
45	106	081112	154	100	01	1	5	2	10	0	1
1	108	020812	124	49	01	1	5	1	35	0	1
2	108	020812	267	49	01	2	5	1	35	0	1
3	108	020812	269	49	01	3	4	1	35	0	2
4	108	020812	271	49	01	2	1	1	25	0	2
5	108	020812	273	49	01	2	3	1	35	0	1
6	108	020812	272	49	01	1	5	1	30	0	2
7	108	020812	266	49	01	2	5	1	30	0	1
8	108	020812	265	49	01	1	5	1	30	0	1
9	108	020812	264	49	01	1	5	1	30	0	2
10	108	020812	211	49	01	3	1	1	40	0	2
11	108	020812	207	49	31	1	5	1	100	0	
12	108	020812	275	49	01	2	2	1	35	0	1
13	108	020812	107	49	01	2	1	1	30	0	1
14	108	020812	103	49	01	2	5	1	45	0	2
15	108	020812	105	49	01	2	1	1	35	0	2
16	108	020812	112	49	01	2	1	1	25	0	2
17	108	020812	119	49	01	1	5	1	25	0	2
18	108	020812	109	49	01	1	5	1	30	0	1
19	108	020812	115	49	01	2	3	1	40	0	2
20	108	020812	106	49	01	2	1	1	35	0	1
21	108	020812	133	49	01	3	2	1	55	0	1
22	108	020812	113	49	01	2	1	1	30	0	2
23	108	020812	127	49	01	2	2	1	35	0	2
24	108	020812	235	49	01	2	5	1	55	0	2
25	108	020812	216	49	01	2	1	2	35	0	2
26	108	020812	239	49	01	3	1	1	40	0	1
27	108	020812	238	49	01	2	1	1	35	0	2
28	108	020812	237	49	01	2	1	1	25	0	2
29	108	020812	231	49	01	2	5	1	35	0	2
30	108	020812	92	49	01	2	5	1	30	0	1
31	108	020812	95	49	01	3	5	1	30	0	1
32	108	020812	215	49	01	2	2	1	40	0	2
33	108	020812	213	49	01	2	5	1	35	0	2
34	108	020812	214	49	01	3	2	1	40	0	2

35	108	020812	156	49	01	2	1	2	30	0	1
36	108	020812	155	49	01	2	1	1	30	0	1
37	108	020812	162	49	01	1	1	1	40	0	1
38	108	020812	163	49	01	1	1	1	40	0	1
39	108	020812	184	49	01	2	4	2	35	0	1
40	108	020812	185	49	01	3	3	2	30	0	1
41	108	020812	183	49	01	2	1	1	30	0	1
42	108	020812	190	49	01	3	3	2	40	0	2
43	108	020812	191	49	01	2	2	2	40	0	1
44	108	020812	201	49	01	1	5	1	45	0	1
45	108	020812	160	49	01	1	5	1	40	0	1
1	109	130912	289	51	01	2	5	1	25	0	1
2	109	130912	270	51	01	2	1	3	30	0	1
3	109	130912	286	51	01	2	5	1	20	0	1
4	109	130912	275	51	01	2	5	1	30	0	1
5	109	130912	264	51	43	2	5	1	100	0	
6	109	130912	294	51	01	2	2	1	20	0	1
7	109	130912	297	51	01	2	2	3	30	0	1
8	109	130912	309	51	01	2	1	2	20	0	1
9	109	130912	260	51	01	2	2	1	40	0	1
10	109	130912	252	51	01	2	5	1	20	0	1
11	109	130912	257	51	01	2	5	2	30	0	
12	109	130912	112	51	01	2	5	2	30	0	1
13	109	130912	32	51	01	2	1	1	20	0	1
14	109	130912	28	51	01	2	2	2	25	0	1
15	109	130912	23	51	01	2	1	3	25	0	1
16	109	130912	168	51	01	2	5	2	35	0	1
17	109	130912	171	51	01	2	1	2	30	0	1
18	109	130912	175	51	01	2	5	3	30	0	1
19	109	130912	178	51	01	2	5	3	35	0	1
20	109	130912	192	51	01	2	2	3	30	0	1
21	109	130912	6	51	01	2	5	1	35	0	1
22	109	130912	132	51	01	2	1	3	25	0	1
23	109	130912	43	51	01	2	5	1	25	0	1
24	109	130912	67	51	01	2	5	1	35	0	1
25	109	130912	69	51	01	2	1	3	25	0	1
26	109	130912	60	51	01	2	1	1	25	0	1
27	109	130912	100	51	01	2	5	1	25	0	1
28	109	130912	96	51	01	2	5	1	30	0	1
29	109	130912	91	51	01	2	5	1	25	0	1
30	109	130912	331	51	01	2	1	1	20	0	1
31	109	130912	333	51	01	2	2	1	35	0	1
32	109	130912	334	51	01	2	1	3	30	0	1
33	109	130912	308	51	01	2	5	1	35	0	1
34	109	130912	304	51	01	2	2	3	30	0	1
35	109	130912	233	51	01	2	5	2	25	0	1
36	109	130912	174	51	01	2	1	1	15	0	1

37	109	130912	188	51	01	2	1	1	15	0	1
38	109	130912	179	51	01	2	1	1	25	0	1
39	109	130912	180	51	01	2	2	3	30	0	1
40	109	130912	198	51	01	2	5	1	20	0	
41	109	130912	199	51	01	2	5	1	20	0	1
42	109	130912	223	51	01	2	5	1	35	0	1
43	109	130912	218	51	01	2	5	1	30	0	1
44	109	130912	220	51	01	2	5	2	30	0	1
45	109	130912	228	51	01	2	3	1	20	0	1
1	110	100912	76	51	01	2	1	2	25	0	1
2	110	100912	56	51	01	2	1	2	25	0	1
3	110	100912	52	51	01	2	1	2	20	0	1
4	110	100912	111	51	01	2	1	2	85	0	1
5	110	100912	105	51	01	2	1	2	35	0	1
6	110	100912	87	51	01	2	1	2	30	0	1
7	110	100912	89	51	01	2	1	2	25	0	1
8	110	100912	221	51	01	2	1	2	30	0	1
9	110	100912	224	51	01	2	1	2	35	0	1
10	110	100912	363	51	01	2	2	2	25	0	1
11	110	100912	360	51	01	2	1	2	25	0	1
12	110	100912	392	51	01	2	1	2	35	0	1
13	110	100912	353	51	01	2	1	2	25	0	1
14	110	100912	348	51	01	2	1	2	35	0	1
15	110	100912	416	51	01	2	1	2	40	0	1
16	110	100912	373	51	01	2	1	2	25	0	1
17	110	100912	372	51	01	2	1	2	35	0	3
18	110	100912	377	51	01	2	1	2	35	0	2
19	110	100912	385	51	01	2	1	2	35	0	2
20	110	100912	409	51	01	2	2	2	35	0	1
21	110	100912	493	51	01	2	1	2	30	0	1
22	110	100912	525	51	01	2	1	2	30	0	1
23	110	100912	516	51	01	2	1	2	45	0	1
24	110	100912	506	51	01	2	1	2	80	0	1
25	110	100912	533	51	01	2	1	2	30	0	2
26	110	100912	421	51	01	2	1	2	30	0	1
27	110	100912	418	51	01	2	1	2	35	0	2
28	110	100912	476	51	01	2	1	2	35	0	2
29	110	100912	538	51	01	2	1	2	25	0	1
30	110	100912	586	51	01	2	1	2	35	0	2
31	110	100912	594	51	01	2	1	2	45	0	1
32	110	100912	443	51	01	2	1	2	35	0	1
33	110	100912	454	51	01	2	1	2	35	0	2
34	110	100912	120	51	01	2	1	2	35	0	1
35	110	100912	287	51	01	2	1	2	35	0	1
36	110	100912	301	51	01	2	1	2	35	0	1
37	110	100912	310	51	01	2	1	2	30	0	1
38	110	100912	350	51	01	2	2	2	45	0	1

39	110	100912	400	51	01	2	1	2	35	0	1
40	110	100912	440	51	01	2	1	2	35	0	1
41	110	100912	160	51	01	2	1	2	30	0	1
42	110	100912	172	51	01	2	1	2	30	0	1
43	110	100912	4	51	01	2	1	2	25	0	1
44	110	100912	179	51	01	2	1	2	15	0	1
45	110	100912	45	51	01	2	1	2	45	0	1

Slika 3.2.1. Stablo za procjenu oštećenosti krošanja, ploha 108 (Poreč)

Slika 3.2.1. Mrtvo stojeće stablo hrasta medunca, broj 207, ploha 108 (Poreč)

3.3. Kemizam biljnog materijala

U 2012. godini uzorci biljnog materijala (lišće/iglice) uzorkovani su na svih sedam postojećih ploha intenzivnog motrenja (Razina 2) prema Tablici 3.3.1. Uzorci su uzeti lovačkom puškom sačmaricom s pet stabala po plohi i vrsti, pri čemu se vodilo računa da uzorci budu uzeti iz osvijetljenog dijela krošnje. Nakon uzorkovanja uzorci su pospremljeni u papirne vrećice i dostavljeni u laboratorij Hrvatskog šumarskog instituta na analizu. Nakon sušenja i usitnjavanja, u uzorcima je određena koncentracija dušika i ugljika na elementarnom analizatoru Leco CNS 2000, sumpora na elementarnom analizatoru Leco S Analyzer, a fosfora nakon mokrog spaljivanja na spektrofotometru Labomed UVS-2700. Sadržaj Cu i Cd određeni su na atomskom apsorpcijskom spektrofotometru.

Tablica 3.3.1. Plohe intenzivnog motrenja na kojima je uzorkovan biljni materijal (572012.plf)

redni broj	zemlja	ploha	datum	zemljopisna širina	zemljopina dužina	nadmorska visina	napomene
1	57	102	260811	+454046	+153805	4	
2	57	103	181111	+455403	+155722	20	
3	57	105	270811	+444859	+145852	31	
4	57	106	251111	+452853	+143529	19	
5	57	108	300811	+451459	+134354	5	
6	57	109	240811	+450122	+185538	2	
7	57	110	230811	+453842	+154134	3	

Tablica 3.3.2. Rezultati analize biljnog materijala (masa lišća/iglica) (572012.fom)

redni broj	ploha	uzorak	početak analize	kraj analize	masa lišća (g)	masa iglica (g)
1	102	01	291112	301112	19,91	
2	103	01	291112	301112	9,00	
3	103	02	291112	301112		2,99
4	103	03	291112	301112		3,30
5	105	01	291112	301112	10,69	
6	106	01	291112	301112		2,61
7	106	02	291112	301112		3,19
8	108	01	291112	301112	15,20	
9	109	01	291112	301112	13,89	
10	110	01	291112	301112	23,71	

Tablica 3.3.3. Rezultati analize biljnog materijala (dušik, sumpor, fosfor, ugljik, bakar, kadmij) (572012.fom, nastavak)

red. br.	ploha	uzorak	poč. anal.	kraj anal.	N (mg/g)	S (mg/g)	P (mg/g)	C (g/100g)	Cu µg/g	Cd (µg/g)	napomena
1	102	01	291112	301112	17,00	1,22	0,78	47,49	3,19	28,88	
2	103	01	291112	301112	20,90	1,03	0,87	48,78	4,2	38,17	
3	103	02	291112	301112	12,00	1,86	1,10	50,32	2,76	44,8	
4	103	03	291112	301112	12,30	1,84	1,32	49,94	2,92	46,5	
5	105	01	291112	301112	25,10	2,11	0,90	48,53	4,95	36,83	
6	106	01	291112	301112	12,30	1,19	0,81	50,01	2,79	51,46	
7	106	02	291112	301112	13,40	1,13	0,58	50,64	2,87	49,84	
8	108	01	291112	301112	14,30	1,01	1,03	47,01	3,07	37,24	
9	109	01	291112	301112	19,00	1,74	1,32	47,67	4,1	114,7	
10	110	01	291112	301112	21,20	1,65	1,81	47,98	3,57	62,48	

Tablica 3.3.4. Informacije o stablima za uzorkovanje (572012.fot). * 01 –jedna godina, 99 – nije utvrđeno

Redni broj	Ploha	uzorak	stablo	vrsta drveća	Starost lišća/iglica	Broj starosnih klasa lišća	napomena
1	102	01	F001	48	0	01	
2	102	01	F002	48	0	01	
3	102	01	F003	48	0	01	
4	102	01	F004	48	0	01	
5	102	01	F005	48	0	01	
6	103	01	F001	20	0	01	
7	103	01	F002	20	0	01	
8	103	01	F003	20	0	01	
9	103	01	F004	20	0	01	
10	103	01	F005	20	0	01	
11	103	02	F006	100	0	99	
12	103	02	F007	100	0	99	
13	103	02	F008	100	0	99	
14	103	02	F009	100	0	99	
15	103	02	F010	100	0	99	
16	103	03	F006	100	1	99	
17	103	03	F007	100	1	99	
18	103	03	F008	100	1	99	
19	103	03	F009	100	1	99	
20	103	03	F010	100	1	99	
21	105	01	F001	20	0	01	
22	105	01	F002	20	0	01	
23	105	01	F003	20	0	01	
24	105	01	F004	20	0	01	
25	105	01	F005	20	0	01	
26	106	01	F001	100	0	99	
27	106	01	F002	100	0	99	
28	106	01	F003	100	0	99	
29	106	01	F004	100	0	99	
30	106	01	F005	100	0	99	
31	106	02	F001	100	1	99	
32	106	02	F002	100	1	99	
33	106	02	F003	100	1	99	
34	106	02	F004	100	1	99	
35	106	02	F005	100	1	99	
36	108	01	F001	49	0	01	
37	108	01	F002	49	0	01	
38	108	01	F003	49	0	01	
39	108	01	F004	49	0	01	
40	108	01	F005	49	0	01	
41	109	01	F001	51	0	01	
42	109	01	F002	51	0	01	

43	109	01	F003	51	0	01	
44	109	01	F004	51	0	01	
45	109	01	F005	51	0	01	
46	110	01	F001	51	0	01	
47	110	01	F002	51	0	01	
48	110	01	F003	51	0	01	
49	110	01	F004	51	0	01	
50	110	01	F005	51	0	01	

Tablica 3.3.5. Rezultati kontrole kvalitete kemijskih analiza biljnog materijala (572012.lqa)

red. br.	zemlja	ploha	datum	par.	predtr.	det.	gr. det.	kontr.	st.dev.	test	br.testa	lab.	uslug%
1	57	102	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
2	57	102	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
3	57	102	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
4	57	102	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
5	57	102	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
6	57	102	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
7	57	103	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
8	57	103	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
9	57	103	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
10	57	103	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
11	57	103	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
12	57	103	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
13	57	105	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
14	57	105	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
15	57	105	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
16	57	105	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
17	57	105	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
18	57	105	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
19	57	106	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
20	57	106	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
21	57	106	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
22	57	106	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
23	57	106	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
24	57	106	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
25	57	108	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
26	57	108	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
27	57	108	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
28	57	108	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
29	57	108	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	

30	57	108	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
31	57	109	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
32	57	109	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
33	57	109	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
34	57	109	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
35	57	109	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
36	57	109	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	
37	57	110	24012013	N	1	17.1	5,10	20,32	0,51	1	15	A62	25
38	57	110	24012013	S	1	16.1	1,50	1,49	0,15	1	15	A62	100
39	57	110	24012013	C	1	17.1	0,40	48,62	0,04	1	15	A62	100
40	57	110	24012013	P	2	50	0,80	1,18	0,08	1	15	A62	25
41	57	110	24012013	Cd	5.5	22	10,70	137,27	1,07	1	15	A62	
42	57	110	24012013	Cu	5.5	22	1,20	7,20	0,12	1	15	A62	

Slika 3.3.1. Skupina stabala za uzorkovanje biljnog materijala izvan plohe 103 (Sljeme)

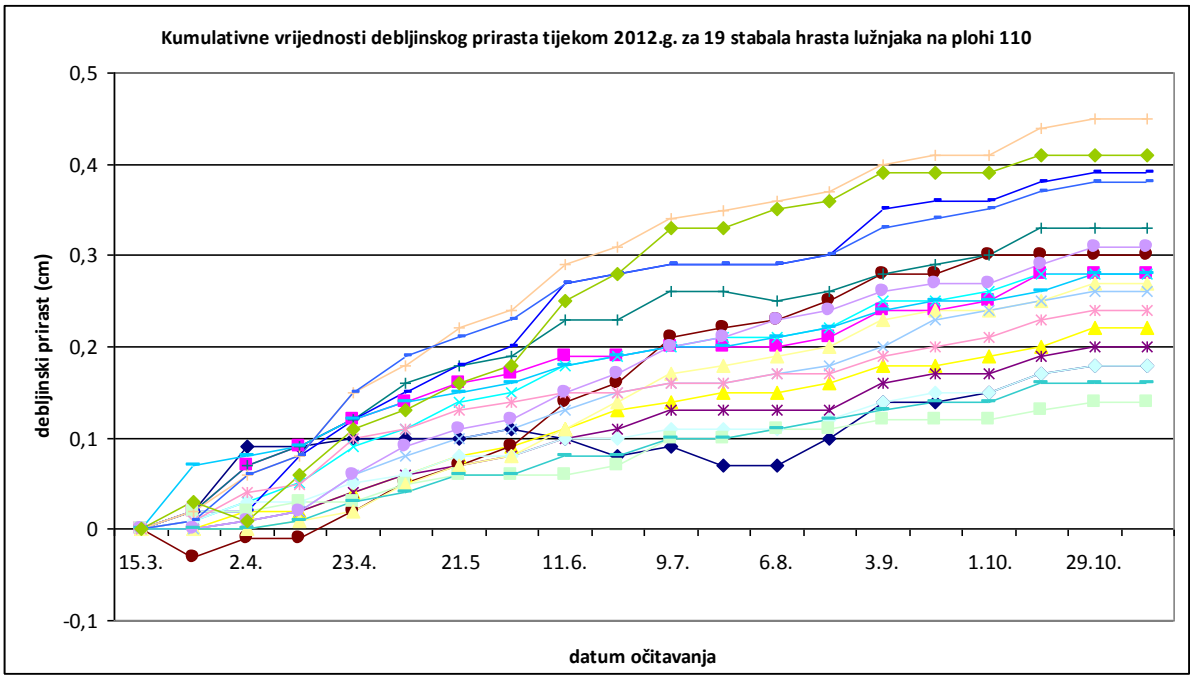
3.4. Rast i prirast stabala

Radovi iz domene rasta i prirasta tijekom 2012. godine obavljani su na plohi Jastrebarski lugovi (110). S obzirom da su 2011. godine na 19 stabala hrasta lužnjaka postavljene ukupno 24 dendrometarske trake (na stabla većih promjera spajane su dvije trake), protekla je godina bila prva u kojoj je praćen rast stabala očitanjima promjera svaka dva tjedna. Prvi izlazak na plohu te nulto očitanje vršilo se 15. ožujka, a posljednje 26. studenog. Kao početno očitanje uzelo se ono od 26. ožujka, kada su trake već poprimile svoju konačnu poziciju na stablu. Na očitanja te kontrolu opreme utrošeno je svih planiranih 25 radnik/dana, a radove su obavili Dragan Jakšić, Nikolina Milanović, Maša Zorana Ostrogović, Danijela Ivanković i Krunoslav Indir.

Tabela 3.4.1. Podaci očitanja dendrometarskih traka 2012. godine

datum očitanja	broj stabla - očitani promjeri u cm																		
	350	353	373	377	385	409	416	471	476	484	492	493	509	516	525	533	538	553	571
15.3.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
26.3.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
2.4.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
9.4.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
23.4.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
7.5.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
21.5	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
4.6.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
11.6.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
26.6.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
9.7.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
23.7.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
6.8.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
20.8.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
3.9.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
17.9.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
1.10.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
15.10.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
29.10.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
12.11.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####
26.11.	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####

Lužnjakova stabla na kojima su postavljene dendrometarske trake bila su promjera 44,29 cm do 91,67 cm. Godišnji debljinski prirast ostvaren 2012. godine iznosio je 0,14 cm kod stabla br. 492, do 0,45 cm kod stabla br. 533. (Slika 3.4.1.)



Slika 3.4.1. Kretanje kumulativnih vrijednosti debljinskog prirasta za 19 lužnjakovih stabala

Sukladno planu, tijekom 2012. godine izvršena je i nabava jedne Silva busole i dvije Haglof promjerke, što će biti korišteno kod budućih radova na plohama razine II.

Tabela 3.4.2. Podaci očitavanja s dendrometarskih traka u formatu propisanog obrasca (572012.irp)

redni broj	zemlja	ploha	pot-ploha	stablo	datum	prsni pr.	vrije-me	mjereno/ sred.vrij.	dendro-metar/ traka	promjena trake prije očitanja
1	57	110		350	150312	61,52		1	2	N
2	57	110		350	260312	61,48		1	2	N
3	57	110		350	020412	61,50		1	2	N
4	57	110		350	090412	61,57		1	2	N
5	57	110		350	230412	61,57		1	2	N
6	57	110		350	070512	61,58		1	2	N
7	57	110		350	210512	61,58		1	2	N
8	57	110		350	040612	61,58		1	2	N
9	57	110		350	110612	61,59		1	2	N
10	57	110		350	260612	61,58		1	2	N
11	57	110		350	090712	61,56		1	2	N

12	57	110		350	230712	61,57		1	2	N
13	57	110		350	060812	61,55		1	2	N
14	57	110		350	200812	61,55		1	2	N
15	57	110		350	030912	61,58		1	2	N
16	57	110		350	170912	61,62		1	2	N
17	57	110		350	011012	61,62		1	2	N
18	57	110		350	151012	61,63		1	2	N
19	57	110		350	291012	61,65		1	2	N
20	57	110		350	121112	61,66		1	2	N
21	57	110		350	261112	61,66		1	2	N
22	57	110		353	150312	56,43		1	2	N
23	57	110		353	260312	56,41		1	2	N
24	57	110		353	020412	56,43		1	2	N
25	57	110		353	090412	56,48		1	2	N
26	57	110		353	230412	56,50		1	2	N
27	57	110		353	070512	56,53		1	2	N
28	57	110		353	210512	56,55		1	2	N
29	57	110		353	040612	56,57		1	2	N
30	57	110		353	110612	56,58		1	2	N
31	57	110		353	260612	56,60		1	2	N
32	57	110		353	090712	56,60		1	2	N
33	57	110		353	230712	56,61		1	2	N
34	57	110		353	060812	56,61		1	2	N
35	57	110		353	200812	56,61		1	2	N
36	57	110		353	030912	56,62		1	2	N
37	57	110		353	170912	56,65		1	2	N
38	57	110		353	011012	56,65		1	2	N
39	57	110		353	151012	56,66		1	2	N
40	57	110		353	291012	56,69		1	2	N
41	57	110		353	121112	56,69		1	2	N
42	57	110		353	261112	56,69		1	2	N
43	57	110		373	150312	72,68		1	2	N
44	57	110		373	260312	72,68		1	2	N
45	57	110		373	020412	72,68		1	2	N
46	57	110		373	090412	72,70		1	2	N
47	57	110		373	230412	72,70		1	2	N
48	57	110		373	070512	72,72		1	2	N
49	57	110		373	210512	72,74		1	2	N
50	57	110		373	040612	72,76		1	2	N
51	57	110		373	110612	72,77		1	2	N
52	57	110		373	260612	72,79		1	2	N
53	57	110		373	090712	72,81		1	2	N
54	57	110		373	230712	72,82		1	2	N
55	57	110		373	060812	72,83		1	2	N
56	57	110		373	200812	72,83		1	2	N
57	57	110		373	030912	72,84		1	2	N
58	57	110		373	170912	72,86		1	2	N
59	57	110		373	011012	72,86		1	2	N
60	57	110		373	151012	72,87		1	2	N
61	57	110		373	291012	72,88		1	2	N
62	57	110		373	121112	72,90		1	2	N
63	57	110		373	261112	72,90		1	2	N

64	57	110		377	150312	51,16		1	2	N
65	57	110		377	260312	51,16		1	2	N
66	57	110		377	020412	51,17		1	2	N
67	57	110		377	090412	51,19		1	2	N
68	57	110		377	230412	51,21		1	2	N
69	57	110		377	070512	51,25		1	2	N
70	57	110		377	210512	51,27		1	2	N
71	57	110		377	040612	51,30		1	2	N
72	57	110		377	110612	51,31		1	2	N
73	57	110		377	260612	51,34		1	2	N
74	57	110		377	090712	51,35		1	2	N
75	57	110		377	230712	51,36		1	2	N
76	57	110		377	060812	51,37		1	2	N
77	57	110		377	200812	51,37		1	2	N
78	57	110		377	030912	51,38		1	2	N
79	57	110		377	170912	51,41		1	2	N
80	57	110		377	011012	51,41		1	2	N
81	57	110		377	151012	51,42		1	2	N
82	57	110		377	291012	51,44		1	2	N
83	57	110		377	121112	51,44		1	2	N
84	57	110		377	261112	51,44		1	2	N
85	57	110		385	150312	51,49		1	2	N
86	57	110		385	260312	51,49		1	2	N
87	57	110		385	020412	51,49		1	2	N
88	57	110		385	090412	51,50		1	2	N
89	57	110		385	230412	51,51		1	2	N
90	57	110		385	070512	51,53		1	2	N
91	57	110		385	210512	51,55		1	2	N
92	57	110		385	040612	51,56		1	2	N
93	57	110		385	110612	51,57		1	2	N
94	57	110		385	260612	51,59		1	2	N
95	57	110		385	090712	51,60		1	2	N
96	57	110		385	230712	51,62		1	2	N
97	57	110		385	060812	51,62		1	2	N
98	57	110		385	200812	51,62		1	2	N
99	57	110		385	030912	51,62		1	2	N
100	57	110		385	170912	51,65		1	2	N
101	57	110		385	011012	51,66		1	2	N
102	57	110		385	151012	51,66		1	2	N
103	57	110		385	291012	51,68		1	2	N
104	57	110		385	121112	51,69		1	2	N
105	57	110		385	261112	51,69		1	2	N
106	57	110		409	150312	91,67		1	2	N
107	57	110		409	260312	91,72		1	2	N
108	57	110		409	020412	91,69		1	2	N
109	57	110		409	090412	91,71		1	2	N
110	57	110		409	230412	91,71		1	2	N
111	57	110		409	070512	91,74		1	2	N
112	57	110		409	210512	91,77		1	2	N
113	57	110		409	040612	91,79		1	2	N
114	57	110		409	110612	91,81		1	2	N
115	57	110		409	260612	91,86		1	2	N

116	57	110		409	090712	91,88		1	2	N
117	57	110		409	230712	91,93		1	2	N
118	57	110		409	060812	91,94		1	2	N
119	57	110		409	200812	91,95		1	2	N
120	57	110		409	030912	91,97		1	2	N
121	57	110		409	170912	92,00		1	2	N
122	57	110		409	011012	92,00		1	2	N
123	57	110		409	151012	92,02		1	2	N
124	57	110		409	291012	92,02		1	2	N
125	57	110		409	121112	92,02		1	2	N
126	57	110		409	261112	92,02		1	2	N
127	57	110		416	150312	60,72		1	2	N
128	57	110		416	260312	60,67		1	2	N
129	57	110		416	020412	60,69		1	2	N
130	57	110		416	090412	60,74		1	2	N
131	57	110		416	230412	60,76		1	2	N
132	57	110		416	070512	60,79		1	2	N
133	57	110		416	210512	60,83		1	2	N
134	57	110		416	040612	60,85		1	2	N
135	57	110		416	110612	60,86		1	2	N
136	57	110		416	260612	60,90		1	2	N
137	57	110		416	090712	60,90		1	2	N
138	57	110		416	230712	60,93		1	2	N
139	57	110		416	060812	60,93		1	2	N
140	57	110		416	200812	60,92		1	2	N
141	57	110		416	030912	60,93		1	2	N
142	57	110		416	170912	60,95		1	2	N
143	57	110		416	011012	60,96		1	2	N
144	57	110		416	151012	60,97		1	2	N
145	57	110		416	291012	61,00		1	2	N
146	57	110		416	121112	61,00		1	2	N
147	57	110		416	261112	61,00		1	2	N
148	57	110		471	150312	60,16		1	2	N
149	57	110		471	260312	60,16		1	2	N
150	57	110		471	020412	60,18		1	2	N
151	57	110		471	090412	60,18		1	2	N
152	57	110		471	230412	60,24		1	2	N
153	57	110		471	070512	60,28		1	2	N
154	57	110		471	210512	60,31		1	2	N
155	57	110		471	040612	60,34		1	2	N
156	57	110		471	110612	60,36		1	2	N
157	57	110		471	260612	60,43		1	2	N
158	57	110		471	090712	60,44		1	2	N
159	57	110		471	230712	60,45		1	2	N
160	57	110		471	060812	60,45		1	2	N
161	57	110		471	200812	60,45		1	2	N
162	57	110		471	030912	60,46		1	2	N
163	57	110		471	170912	60,51		1	2	N
164	57	110		471	011012	60,52		1	2	N
165	57	110		471	151012	60,52		1	2	N
166	57	110		471	291012	60,54		1	2	N
167	57	110		471	121112	60,55		1	2	N

168	57	110		471	261112	60,55		1	2	N
169	57	110		476	150312	66,00		1	2	N
170	57	110		476	260312	66,01		1	2	N
171	57	110		476	020412	66,08		1	2	N
172	57	110		476	090412	66,09		1	2	N
173	57	110		476	230412	66,10		1	2	N
174	57	110		476	070512	66,13		1	2	N
175	57	110		476	210512	66,15		1	2	N
176	57	110		476	040612	66,16		1	2	N
177	57	110		476	110612	66,17		1	2	N
178	57	110		476	260612	66,19		1	2	N
179	57	110		476	090712	66,20		1	2	N
180	57	110		476	230712	66,21		1	2	N
181	57	110		476	060812	66,21		1	2	N
182	57	110		476	200812	66,22		1	2	N
183	57	110		476	030912	66,23		1	2	N
184	57	110		476	170912	66,25		1	2	N
185	57	110		476	011012	66,26		1	2	N
186	57	110		476	151012	66,26		1	2	N
187	57	110		476	291012	66,27		1	2	N
188	57	110		476	121112	66,29		1	2	N
189	57	110		476	261112	66,29		1	2	N
190	57	110		484	150312	44,29		1	2	N
191	57	110		484	260312	44,29		1	2	N
192	57	110		484	020412	44,30		1	2	N
193	57	110		484	090412	44,32		1	2	N
194	57	110		484	230412	44,32		1	2	N
195	57	110		484	070512	44,34		1	2	N
196	57	110		484	210512	44,35		1	2	N
197	57	110		484	040612	44,37		1	2	N
198	57	110		484	110612	44,37		1	2	N
199	57	110		484	260612	44,39		1	2	N
200	57	110		484	090712	44,39		1	2	N
201	57	110		484	230712	44,40		1	2	N
202	57	110		484	060812	44,40		1	2	N
203	57	110		484	200812	44,40		1	2	N
204	57	110		484	030912	44,41		1	2	N
205	57	110		484	170912	44,43		1	2	N
206	57	110		484	011012	44,44		1	2	N
207	57	110		484	151012	44,44		1	2	N
208	57	110		484	291012	44,46		1	2	N
209	57	110		484	121112	44,47		1	2	N
210	57	110		484	261112	44,47		1	2	N
211	57	110		492	150312	45,20		1	2	N
212	57	110		492	260312	45,20		1	2	N
213	57	110		492	020412	45,22		1	2	N
214	57	110		492	090412	45,22		1	2	N
215	57	110		492	230412	45,23		1	2	N
216	57	110		492	070512	45,23		1	2	N
217	57	110		492	210512	45,25		1	2	N
218	57	110		492	040612	45,26		1	2	N
219	57	110		492	110612	45,26		1	2	N

220	57	110		492	260612	45,26		1	2	N
221	57	110		492	090712	45,27		1	2	N
222	57	110		492	230712	45,30		1	2	N
223	57	110		492	060812	45,30		1	2	N
224	57	110		492	200812	45,31		1	2	N
225	57	110		492	030912	45,31		1	2	N
226	57	110		492	170912	45,32		1	2	N
227	57	110		492	011012	45,32		1	2	N
228	57	110		492	151012	45,32		1	2	N
229	57	110		492	291012	45,33		1	2	N
230	57	110		492	121112	45,34		1	2	N
231	57	110		492	261112	45,34		1	2	N
232	57	110		493	150312	76,28		1	2	N
233	57	110		493	260312	76,28		1	2	N
234	57	110		493	020412	76,28		1	2	N
235	57	110		493	090412	76,28		1	2	N
236	57	110		493	230412	76,29		1	2	N
237	57	110		493	070512	76,30		1	2	N
238	57	110		493	210512	76,33		1	2	N
239	57	110		493	040612	76,35		1	2	N
240	57	110		493	110612	76,36		1	2	N
241	57	110		493	260612	76,39		1	2	N
242	57	110		493	090712	76,42		1	2	N
243	57	110		493	230712	76,45		1	2	N
244	57	110		493	060812	76,46		1	2	N
245	57	110		493	200812	76,47		1	2	N
246	57	110		493	030912	76,48		1	2	N
247	57	110		493	170912	76,51		1	2	N
248	57	110		493	011012	76,52		1	2	N
249	57	110		493	151012	76,52		1	2	N
250	57	110		493	291012	76,53		1	2	N
251	57	110		493	121112	76,55		1	2	N
252	57	110		493	261112	76,55		1	2	N
253	57	110		509	150312	49,51		1	2	N
254	57	110		509	260312	49,50		1	2	N
255	57	110		509	020412	49,50		1	2	N
256	57	110		509	090412	49,51		1	2	N
257	57	110		509	230412	49,52		1	2	N
258	57	110		509	070512	49,56		1	2	N
259	57	110		509	210512	49,58		1	2	N
260	57	110		509	040612	49,60		1	2	N
261	57	110		509	110612	49,61		1	2	N
262	57	110		509	260612	49,63		1	2	N
263	57	110		509	090712	49,65		1	2	N
264	57	110		509	230712	49,66		1	2	N
265	57	110		509	060812	49,66		1	2	N
266	57	110		509	200812	49,67		1	2	N
267	57	110		509	030912	49,68		1	2	N
268	57	110		509	170912	49,70		1	2	N
269	57	110		509	011012	49,73		1	2	N
270	57	110		509	151012	49,74		1	2	N
271	57	110		509	291012	49,75		1	2	N

272	57	110		509	121112	49,76		1	2	N
273	57	110		509	261112	49,76		1	2	N
274	57	110		516	150312	57,46		1	2	N
275	57	110		516	260312	57,46		1	2	N
276	57	110		516	020412	57,47		1	2	N
277	57	110		516	090412	57,50		1	2	N
278	57	110		516	230412	57,51		1	2	N
279	57	110		516	070512	57,56		1	2	N
280	57	110		516	210512	57,57		1	2	N
281	57	110		516	040612	57,59		1	2	N
282	57	110		516	110612	57,60		1	2	N
283	57	110		516	260612	57,61		1	2	N
284	57	110		516	090712	57,61		1	2	N
285	57	110		516	230712	57,62		1	2	N
286	57	110		516	060812	57,62		1	2	N
287	57	110		516	200812	57,63		1	2	N
288	57	110		516	030912	57,63		1	2	N
289	57	110		516	170912	57,65		1	2	N
290	57	110		516	011012	57,66		1	2	N
291	57	110		516	151012	57,67		1	2	N
292	57	110		516	291012	57,69		1	2	N
293	57	110		516	121112	57,70		1	2	N
294	57	110		516	261112	57,70		1	2	N
295	57	110		525	150312	72,55		1	2	N
296	57	110		525	260312	72,55		1	2	N
297	57	110		525	020412	72,55		1	2	N
298	57	110		525	090412	72,56		1	2	N
299	57	110		525	230412	72,57		1	2	N
300	57	110		525	070512	72,61		1	2	N
301	57	110		525	210512	72,64		1	2	N
302	57	110		525	040612	72,66		1	2	N
303	57	110		525	110612	72,67		1	2	N
304	57	110		525	260612	72,70		1	2	N
305	57	110		525	090712	72,72		1	2	N
306	57	110		525	230712	72,75		1	2	N
307	57	110		525	060812	72,76		1	2	N
308	57	110		525	200812	72,78		1	2	N
309	57	110		525	030912	72,79		1	2	N
310	57	110		525	170912	72,81		1	2	N
311	57	110		525	011012	72,82		1	2	N
312	57	110		525	151012	72,82		1	2	N
313	57	110		525	291012	72,84		1	2	N
314	57	110		525	121112	72,86		1	2	N
315	57	110		525	261112	72,86		1	2	N
316	57	110		533	150312	83,20		1	2	N
317	57	110		533	260312	83,19		1	2	N
318	57	110		533	020412	83,21		1	2	N
319	57	110		533	090412	83,25		1	2	N
320	57	110		533	230412	83,27		1	2	N
321	57	110		533	070512	83,34		1	2	N
322	57	110		533	210512	83,37		1	2	N
323	57	110		533	040612	83,41		1	2	N

324	57	110		533	110612	83,43		1	2	N
325	57	110		533	260612	83,48		1	2	N
326	57	110		533	090712	83,50		1	2	N
327	57	110		533	230712	83,53		1	2	N
328	57	110		533	060812	83,54		1	2	N
329	57	110		533	200812	83,55		1	2	N
330	57	110		533	030912	83,56		1	2	N
331	57	110		533	170912	83,59		1	2	N
332	57	110		533	011012	83,60		1	2	N
333	57	110		533	151012	83,60		1	2	N
334	57	110		533	291012	83,63		1	2	N
335	57	110		533	121112	83,64		1	2	N
336	57	110		533	261112	83,64		1	2	N
337	57	110		538	150312	59,26		1	2	N
338	57	110		538	260312	59,22		1	2	N
339	57	110		538	020412	59,23		1	2	N
340	57	110		538	090412	59,28		1	2	N
341	57	110		538	230412	59,30		1	2	N
342	57	110		538	070512	59,37		1	2	N
343	57	110		538	210512	59,41		1	2	N
344	57	110		538	040612	59,43		1	2	N
345	57	110		538	110612	59,45		1	2	N
346	57	110		538	260612	59,49		1	2	N
347	57	110		538	090712	59,50		1	2	N
348	57	110		538	230712	59,51		1	2	N
349	57	110		538	060812	59,51		1	2	N
350	57	110		538	200812	59,51		1	2	N
351	57	110		538	030912	59,52		1	2	N
352	57	110		538	170912	59,55		1	2	N
353	57	110		538	011012	59,56		1	2	N
354	57	110		538	151012	59,57		1	2	N
355	57	110		538	291012	59,59		1	2	N
356	57	110		538	121112	59,60		1	2	N
357	57	110		538	261112	59,60		1	2	N
358	57	110		553	150312	44,70		1	2	N
359	57	110		553	260312	44,70		1	2	N
360	57	110		553	020412	44,70		1	2	N
361	57	110		553	090412	44,70		1	2	N
362	57	110		553	230412	44,71		1	2	N
363	57	110		553	070512	44,73		1	2	N
364	57	110		553	210512	44,74		1	2	N
365	57	110		553	040612	44,76		1	2	N
366	57	110		553	110612	44,76		1	2	N
367	57	110		553	260612	44,78		1	2	N
368	57	110		553	090712	44,78		1	2	N
369	57	110		553	230712	44,80		1	2	N
370	57	110		553	060812	44,80		1	2	N
371	57	110		553	200812	44,81		1	2	N
372	57	110		553	030912	44,82		1	2	N
373	57	110		553	170912	44,83		1	2	N
374	57	110		553	011012	44,84		1	2	N
375	57	110		553	151012	44,84		1	2	N

376	57	110		553	291012	44,86		1	2	N
377	57	110		553	121112	44,86		1	2	N
378	57	110		553	261112	44,86		1	2	N
379	57	110		571	150312	47,15		1	2	N
380	57	110		571	260312	47,15		1	2	N
381	57	110		571	020412	47,18		1	2	N
382	57	110		571	090412	47,16		1	2	N
383	57	110		571	230412	47,21		1	2	N
384	57	110		571	070512	47,26		1	2	N
385	57	110		571	210512	47,28		1	2	N
386	57	110		571	040612	47,31		1	2	N
387	57	110		571	110612	47,33		1	2	N
388	57	110		571	260612	47,40		1	2	N
389	57	110		571	090712	47,43		1	2	N
390	57	110		571	230712	47,48		1	2	N
391	57	110		571	060812	47,48		1	2	N
392	57	110		571	200812	47,50		1	2	N
393	57	110		571	030912	47,51		1	2	N
394	57	110		571	170912	47,54		1	2	N
395	57	110		571	011012	47,54		1	2	N
396	57	110		571	151012	47,54		1	2	N
397	57	110		571	291012	47,56		1	2	N
398	57	110		571	121112	47,56		1	2	N
399	57	110		571	261112	47,56		1	2	N

3.5. Depozicija

Istraživanje atmosferskih taloženja u u 2012. godini obuhvatilo je ICP plohe: 110 - Jastrebarski lugovi, 108 - Poreč, 103 - Sljeme i 109 - Vrbanja. Prikupljali su se uzorci oborina ispod krošanja dobivenih metodom prokapljivanja iz 9 hvatača po plohi a za mokro taloženje tj. taloženja iz oborina na otvorenoj plohi bez utjecaja krošanja iz 3 hvatača po plohi. Uzorkovanje su obavili djelatnici HŠI u pravilnim razmacima 1 ili 2 puta mjesečno, ovisno o plohi. Opis ploha i hvatača, vrste uzoraka, periodi uzorkovanja i broj uzorkovanja prikazani su tablici 3.5.1.

Prilikom uzorkovanja izmjeren je volumen prikupljenih uzoraka oborina u svakom pojedinačnom hvatača. Uzorci su dostavljeni Laboratoriju za fizikalno-kemijska ispitivanja HŠI sa pripadajućim obrascima i do analiza su pohranjeni na +4 °C. Elektrokemijskim metodama utvrđena su osnovna fizikalna svojstva uzoraka oborina (pH i provodljivost). Ionskom kromatografijom u profiltriranim je uzorcima na

anionskoj koloni utvrđena količina iona Cl, NO_3, SO_4, i na kationskoj koloni količina iona K, Ca, Mg, Na, NH_4. Utvrđena količina istraživanih kemijskih elemenata, koji se talože u šumi i na otvorenoj plohi dana je kao prosječna godišnja količina navedenih parametara u tablicama 3.5.2. i 3.5.3.

Osiguranje i kontrolu kvalitete dobivenih rezultata i analizu podataka prikupljenih na godišnjoj razini (priprema uzoraka, kemijska analiza, granica kvantifikacije, srednja vrijednost iz kontrolnih karata za svaki pojedini parametar i relativna standardna devijacija) pratila se od prikupljanja uzoraka do analize uzoraka. Podaci o kontroli kvalitete na godišnjoj razini dani su u tablici 3.5.4.

Na slici 3.5.1. i 3.5.2. prikazani su položaj i izgled hvatača za prikupljanje depozicije metodom prokapljivanje na plohi Vrbanja.

3.5.1. Postavljeni kišomjeri na plohi 109, Vrbanja

Slika 3.5.2. Hvatač za uzorke dobivene prokapljivanjem na plohi 109, Vrbanja

Tablica 3.5.1. Plohe intenzivnog motrenja na kojima je obavljena izmjera depozicije (572012.pld, uzork. = kod uzorkivača, vis. = klasa nadmorske visine, početak = datum početka uzorkovanja, kraj = datum završetka uzorkovanja, razd. = broj razdoblja uzorkovanja, mod.uz. = model uzorkivača, vis.uz. = visina uzorkivača, br. uz. = broj uzorkivača)

red.br.	ploha	uzork.	zem. širina	zem. dužina	vis.	početak	kraj	razd.	mod.uz.	vis.uz.	br. uz.
1	110	1	453842	154134	3	02012012	28122012	24	1	1	3
2	110	2	453842	154134	3	02012012	28122012	24	1	1	9
3	108	1	451459	134354	5	21012012	20122012	12	1	1	3
8	108	2	451459	134354	5	21012012	20122012	12	1	1	9
9	109	1	450122	185538	3	5012012	30112012	12	1	1	3
10	109	2	450122	185538	3	5012012	30112012	12	1	1	9
11	103	1	455403	155722	20	17012012	6122012	12	1	1	3
12	103	2	455403	155722	20	17012012	6122012	12	1	1	9

Tablica 3.5.2. Rezultati analize depozicije – obvezni parametri (572012.dem)

Redni broj	ploha	početak	završetak	razd.	uzork.	količina (mm)	pH	provodljivost (µS/cm)	K (mg/l)	Ca (mg/l)
1	110	02012012	28122012	24	1	359,50	7,59	36,66	2,43	2,47
2	110	02012012	28122012	24	2	855,50	6,95	35,71	4,89	2,91
3	108	21012012	20122012	12	1	541,81	5,06	23,37	1,46	1,95
8	108	21012012	20122012	12	2	1491,80	5,62	54,58	7,11	3,69
9	109	5012012	30112012	12	1	260,20	5,69	45,28	2,71	4,27
10	109	5012012	30112012	12	2	838,69	5,87	63,07	6,96	4,75
11	103	17012012	6122012	12	1	522,41	6,10	30,70	1,73	2,82
12	103	17012012	6122012	12	2	1546,05	5,89	34,64	2,57	3,38

Tablica 3.5.3. Rezultati analize depozicije – obvezni parametri (nastavak) (572012.dem)

Redni broj	ploha	Mg (mg/l)	Na (mg/l)	N_NH4 (mg/l)	Cl (mg/l)	N_NO3 (mg/l)	S_SO4 (mg/l)	alkalinitet (µeq/l)	N_total (mg/l)	DOC (mg/l)
1	110	0,42	0,45	0,98	0,91	0,54	2,37			
2	110	0,68	1,14	1,14	0,95	0,36	2,38			
3	108	0,47	1,30	0,65	2,75	0,37	1,45			
8	108	1,14	1,47	1,30	3,11	1,21	3,36			
9	109	0,92	2,36	1,43	2,36	0,58	4,09			
10	109	1,42	2,62	1,19	2,46	0,86	9,54			
11	103	0,47	0,53	1,85	0,63	0,47	2,03			
12	103	0,64	0,79	1,42	1,27	1,13	2,24			

Tablica 3.5.4. Rezultati kontrole kvalitete kemijskih analiza depozicije (572012dp.lqa, predtr. = metoda predtretiranja, det. = metoda determinacije, granice kvant.= granice kvantifikacije, kontr. = srednja vrijednost iz kontrolne karte, rel.st. dev.=relativna standardna devijacija)

Red.br.	zemlja	Ploha	početak	kraj	parametar	Predtret.	Determ.	Granica kvant.	Kontr.	St.dev.
1	57	108	21012012	20122012	pH	1	72.1	1	7,00	0,002
2	57	108	21012012	20122012	cond	1	71	4	51,50	0,007
3	57	108	21012012	20122012	K	1	62.2	12	380,10	0,022
4	57	108	21012012	20122012	Ca	1	62.2	3	0,86	0,005
5	57	108	21012012	20122012	Mg	1	62.2	9	80,20	0,016
6	57	108	21012012	20122012	Na	1	62.2	4	10,20	0,007
7	57	108	21012012	20122012	N_NH4	1	62.2	2	0,50	0,004
8	57	108	21012012	20122012	Cl	1	61.2	1	3,50	0,002
9	57	108	21012012	20122012	N_NO3	1	61.2	1	2,00	0,002
10	57	108	21012012	20122012	S_SO4	1	61.2	3	4,50	0,005
11	57	108	21012012	20122012	pH	1	72.1	1	7,00	0,002

12	57	108	21012012	20122012	cond	1	71	4	51,50	0,007
13	57	108	21012012	20122012	K	1	62.2	12	380,10	0,022
14	57	108	21012012	20122012	Ca	1	62.2	3	0,86	0,005
15	57	108	21012012	20122012	Mg	1	62.2	9	80,20	0,016
16	57	108	21012012	20122012	Na	1	62.2	4	10,20	0,007
17	57	108	21012012	20122012	N_NH4	1	62.2	2	0,50	0,004
18	57	108	21012012	20122012	Cl	1	61.2	1	3,50	0,002
19	57	108	21012012	20122012	N_NO3	1	61.2	1	2,00	0,002
20	57	108	21012012	20122012	S_SO4	1	61.2	3	4,50	0,005
21	57	110	02012012	28122012	pH	1	72.1	1	7,00	0,002
22	57	110	02012012	28122012	cond	1	71	4	51,50	0,007
23	57	110	02012012	28122012	K	1	62.2	12	380,10	0,022
24	57	110	02012012	28122012	Ca	1	62.2	3	0,86	0,005
25	57	110	02012012	28122012	Mg	1	62.2	9	80,20	0,016
26	57	110	02012012	28122012	Na	1	62.2	4	10,20	0,007
27	57	110	02012012	28122012	N_NH4	1	62.2	2	0,50	0,004
28	57	110	02012012	28122012	Cl	1	61.2	1	3,50	0,002
29	57	110	02012012	28122012	N_NO3	1	61.2	1	2,00	0,002
30	57	110	02012012	28122012	S_SO4	1	61.2	3	4,50	0,005
31	57	110	02012012	28122012	pH	1	72.1	1	7,00	0,002
33	57	110	02012012	28122012	K	1	62.2	12	380,10	0,022
34	57	110	02012012	28122012	Ca	1	62.2	3	0,86	0,005
35	57	110	02012012	28122012	Mg	1	62.2	9	80,20	0,016
36	57	110	02012012	28122012	Na	1	62.2	4	10,20	0,007
37	57	110	02012012	28122012	N_NH4	1	62.2	2	0,50	0,004
38	57	110	02012012	28122012	Cl	1	61.2	1	3,50	0,002
39	57	110	02012012	28122012	N_NO3	1	61.2	1	2,00	0,002
40	57	110	02012012	28122012	S_SO4	1	61.2	3	4,50	0,005
1	57	109	5012012	30112012	pH	1	72.1	1	7,00	0,002
2	57	109	5012012	30112012	cond	1	71	4	51,50	0,007
3	57	109	5012012	30112012	K	1	62.2	12	380,10	0,022
4	57	109	5012012	30112012	Ca	1	62.2	3	0,86	0,005
5	57	109	5012012	30112012	Mg	1	62.2	9	80,20	0,016
6	57	109	5012012	30112012	Na	1	62.2	4	10,20	0,007
7	57	109	5012012	30112012	N_NH4	1	62.2	2	0,50	0,004
8	57	109	5012012	30112012	Cl	1	61.2	1	3,50	0,002
9	57	109	5012012	30112012	N_NO3	1	61.2	1	2,00	0,002
10	57	109	5012012	30112012	S_SO4	1	61.2	3	4,50	0,005
11	57	109	5012012	30112012	pH	1	72.1	1	7,00	0,002
12	57	109	5012012	30112012	cond	1	71	4	51,50	0,007
13	57	109	5012012	30112012	K	1	62.2	12	380,10	0,022
14	57	109	5012012	30112012	Ca	1	62.2	3	0,86	0,005
15	57	109	5012012	30112012	Mg	1	62.2	9	80,20	0,016
16	57	109	5012012	30112012	Na	1	62.2	4	10,20	0,007
17	57	109	5012012	30112012	N_NH4	1	62.2	2	0,50	0,004
18	57	109	5012012	30112012	Cl	1	61.2	1	3,50	0,002
19	57	109	5012012	30112012	N_NO3	1	61.2	1	2,00	0,002
20	57	109	5012012	30112012	S_SO4	1	61.2	3	4,50	0,005
21	57	103	17012012	6122012	pH	1	72.1	1	7,00	0,002

22	57	103	17012012	6122012	cond	1	71	4	51,50	0,007
23	57	103	17012012	6122012	K	1	62.2	12	380,10	0,022
24	57	103	17012012	6122012	Ca	1	62.2	3	0,86	0,005
25	57	103	17012012	6122012	Mg	1	62.2	9	80,20	0,016
26	57	103	17012012	6122012	Na	1	62.2	4	10,20	0,007
27	57	103	17012012	6122012	N_NH4	1	62.2	2	0,50	0,004
28	57	103	17012012	6122012	Cl	1	61.2	1	3,50	0,002
29	57	103	17012012	6122012	N_NO3	1	61.2	1	2,00	0,002
30	57	103	17012012	6122012	S_SO4	1	61.2	3	4,50	0,005
31	57	103	17012012	6122012	pH	1	72.1	1	7,00	0,002
32	57	103	17012012	6122012	cond	1	71	4	51,50	0,007
33	57	103	17012012	6122012	K	1	62.2	12	380,10	0,022
34	57	103	17012012	6122012	Ca	1	62.2	3	0,86	0,005
35	57	103	17012012	6122012	Mg	1	62.2	9	80,20	0,016
36	57	103	17012012	6122012	Na	1	62.2	4	10,20	0,007
37	57	103	17012012	6122012	N_NH4	1	62.2	2	0,50	0,004
38	57	103	17012012	6122012	Cl	1	61.2	1	3,50	0,002
39	57	103	17012012	6122012	N_NO3	1	61.2	1	2,00	0,002
40	57	103	17012012	6122012	S_SO4	1	61.2	3	4,50	0,005

3.6. Fenologija

Fenološka motrenja u oviru projekta ICP Forests u Hrvatskoj se provode na plohi intenzivnog motrenja 110 (Jastrebarski lugovi). Procjena se obavlja na 15 stabala hrasta lužnjaka, koja su obilježena oznakama od M1 - M15, u vrijeme vegetacijskog razdoblja. Ove godine fenološka motrenja započela su 26.03.2012 i trajala su do 10.12.2012. godine.

Tablica 3.6.1. Podaci o stablima na kojima se provode fenološka motrenja (572012.plp)

Redni broj	Ploha	Vrsta drveća	Datum	Oznaka stabla	Vidljivi dio	Vidljivo iz smjera	Položaj procjenitelja	Napomene
1	110	051	090211	M1	1	3	1	
2	110	051	090211	M2	2	7	1	
3	110	051	090211	M3	2	2	1	
4	110	051	090211	M4	3	5	1	
5	110	051	090211	M5	2	3	1	
6	110	051	090211	M6	1	4	1	
7	110	051	090211	M7	2	1	1	

8	110	051	090211	M8	2	3	1	
9	110	051	090211	M9	2	3	1	
10	110	051	090211	M10	1	7	1	
11	110	051	090211	M11	3	3	1	
12	110	051	090211	M12	2	2	1	
13	110	051	090211	M13	2	6	1	
14	110	051	090211	M14	2	3	1	
15	110	051	090211	M15	2	6	1	

Tablica 3.6.2. Rezultati fenoloških motrenja (572012.phi)

Redni broj	Ploha	Broj stabla	Događaj	Datum	Rezultat	Metoda	Napomene
1	110	M1	6	260312	1	1	
2	110	M2	6	260312	1	1	
3	110	M3	6	260312	1	1	
4	110	M4	6	260312	1	1	
5	110	M5	6	260312	1	1	
6	110	M6	6	260312	1	1	
7	110	M7	6	260312	1	1	
8	110	M8	6	260312	1	1	
9	110	M9	6	260312	1	1	
10	110	M10	6	260312	1	1	
11	110	M11	6	260312	1	1	
12	110	M12	6	260312	1	1	
13	110	M13	6	260312	1	1	
14	110	M14	6	260312	1	1	
15	110	M15	6	260312	1	1	
16	110	M1	7	100412	7.1	1	
17	110	M2	7	100412	7.1	1	
18	110	M3	6	100412	1	1	
19	110	M4	6	100412	1	1	
20	110	M5	6	100412	1	1	
21	110	M6	6	100412	1	1	
22	110	M7	6	100412	1	1	
23	110	M8	6	100412	1	1	
24	110	M9	6	100412	1	1	
25	110	M10	6	100412	1	1	
26	110	M11	6	100412	1	1	
27	110	M12	6	100412	1	1	
28	110	M13	6	100412	1	1	
29	110	M14	6	100412	1	1	
30	110	M15	6	100412	1	1	

31	110	M1	1	230412	2	1	
32	110	M2	1	230412	2	1	
33	110	M3	1	230412	3	1	
34	110	M4	1	230412	2	1	
35	110	M5	1	230412	2	1	
36	110	M6	1	230412	2	1	
37	110	M7	1	230412	2	1	
38	110	M8	1	230412	2	1	
39	110	M9	7	230412	7.2	1	
40	110	M10	1	230412	2	1	
41	110	M11	1	230412	2	1	
42	110	M12	7	230412	7.1	1	
43	110	M13	7	230412	7.1	1	
44	110	M14	1	230412	2	1	
45	110	M15	1	230412	2	1	
46	110	M1	1	070512	3	1	
47	110	M2	1	070512	4	1	
48	110	M3	1	070512	5	1	
49	110	M4	1	070512	3	1	
50	110	M5	1	070512	4	1	
51	110	M6	1	070512	4	1	
52	110	M7	1	070512	3	1	
53	110	M8	1	070512	3	1	
54	110	M9	1	070512	3	1	
55	110	M10	1	070512	3	1	
56	110	M11	1	070512	3	1	
57	110	M12	1	070512	3	1	
58	110	M13	1	070512	4	1	
59	110	M14	1	070512	4	1	
60	110	M15	1	070512	3	1	
61	110	M1	1	210512	5	1	
62	110	M2	1	210512	5	1	
63	110	M3	1	210512	5	1	
64	110	M4	1	210512	5	1	
65	110	M5	1	210512	5	1	
66	110	M6	1	210512	5	1	
67	110	M7	1	210512	5	1	
68	110	M8	1	210512	5	1	
69	110	M9	1	210512	5	1	
70	110	M10	1	210512	5	1	
71	110	M11	1	210512	5	1	
72	110	M12	1	210512	5	1	

73	110	M13	1	210512	5	1	
74	110	M14	1	210512	5	1	
75	110	M15	1	210512	5	1	
76	110	M1	1	040612	5	1	
77	110	M2	1	040612	5	1	
78	110	M3	1	040612	5	1	
79	110	M4	1	040612	5	1	
80	110	M5	1	040612	5	1	
81	110	M6	1	040612	5	1	
82	110	M7	1	040612	5	1	
83	110	M8	1	040612	5	1	
84	110	M9	1	040612	5	1	
85	110	M10	1	040612	5	1	
86	110	M11	1	040612	5	1	
87	110	M12	1	040612	5	1	
88	110	M13	1	040612	5	1	
89	110	M14	1	040612	5	1	
90	110	M15	1	040612	5	1	
91	110	M1	1	190612	5	1	
92	110	M2	1	190612	5	1	
93	110	M3	1	190612	5	1	
94	110	M4	1	190612	5	1	
95	110	M5	1	190612	5	1	
96	110	M6	1	190612	5	1	
97	110	M7	1	190612	5	1	
98	110	M8	1	190612	5	1	
99	110	M9	1	190612	5	1	
100	110	M10	1	190612	5	1	
101	110	M11	1	190612	5	1	
102	110	M12	1	190612	5	1	
103	110	M13	1	190612	5	1	
104	110	M14	1	190612	5	1	
105	110	M15	1	190612	5	1	
106	110	M1	1	090712	5	1	
107	110	M2	1	090712	5	1	
108	110	M3	1	090712	5	1	
109	110	M4	1	090712	5	1	
110	110	M5	1	090712	5	1	
111	110	M6	1	090712	5	1	
112	110	M7	1	090712	5	1	
113	110	M8	1	090712	5	1	
114	110	M9	1	090712	5	1	

115	110	M10	1	090712	5	1	
116	110	M11	1	090712	5	1	
117	110	M12	1	090712	5	1	
118	110	M13	1	090712	5	1	
119	110	M14	1	090712	5	1	
120	110	M15	1	090712	5	1	
121	110	M1	1	230712	5	1	
122	110	M2	1	230712	5	1	
123	110	M3	1	230712	5	1	
124	110	M4	1	230712	5	1	
125	110	M5	1	230712	5	1	
126	110	M6	1	230712	5	1	
127	110	M7	1	230712	5	1	
128	110	M8	1	230712	5	1	
129	110	M9	1	230712	5	1	
130	110	M10	1	230712	5	1	
131	110	M11	1	230712	5	1	
132	110	M12	1	230712	5	1	
133	110	M13	1	230712	5	1	
134	110	M14	1	230712	5	1	
135	110	M15	1	230712	5	1	
136	110	M1	1	060812	5	1	
137	110	M2	1	060812	5	1	
138	110	M3	1	060812	5	1	
139	110	M4	1	060812	5	1	
140	110	M5	1	060812	5	1	
141	110	M6	1	060812	5	1	
142	110	M7	1	060812	5	1	
143	110	M8	1	060812	5	1	
144	110	M9	1	060812	5	1	
145	110	M10	1	060812	5	1	
146	110	M11	1	060812	5	1	
147	110	M12	1	060812	5	1	
148	110	M13	1	060812	5	1	
149	110	M14	1	060812	5	1	
150	110	M15	1	060812	5	1	
151	110	M1	1	200812	5	1	
152	110	M2	1	200812	5	1	
153	110	M3	1	200812	5	1	
154	110	M4	1	200812	5	1	
155	110	M5	1	200812	5	1	
156	110	M6	1	200812	5	1	

157	110	M7	1	200812	5	1	
158	110	M8	1	200812	5	1	
159	110	M9	1	200812	5	1	
160	110	M10	1	200812	5	1	
161	110	M11	1	200812	5	1	
162	110	M12	1	200812	5	1	
163	110	M13	1	200812	5	1	
164	110	M14	1	200812	5	1	
165	110	M15	1	200812	5	1	
166	110	M1	2	030912	1	1	
167	110	M2	2	030912	1	1	
168	110	M3	1	030912	5	1	
169	110	M4	1	030912	5	1	
170	110	M5	1	030912	5	1	
171	110	M6	1	030912	5	1	
172	110	M7	1	030912	5	1	
173	110	M8	1	030912	5	1	
174	110	M9	1	030912	5	1	
175	110	M10	1	030912	5	1	
176	110	M11	1	030912	5	1	
177	110	M12	1	030912	5	1	
178	110	M13	1	030912	5	1	
179	110	M14	1	030912	5	1	
180	110	M15	1	030912	5	1	
181	110	M1	2	170912	1	1	
182	110	M2	2	170912	1	1	
183	110	M3	1	170912	5	1	
184	110	M4	1	170912	5	1	
185	110	M5	1	170912	5	1	
186	110	M6	1	170912	5	1	
187	110	M7	1	170912	5	1	
188	110	M8	1	170912	5	1	
189	110	M9	1	170912	5	1	
190	110	M10	1	170912	5	1	
191	110	M11	1	170912	5	1	
192	110	M12	1	170912	5	1	
193	110	M13	1	170912	5	1	
194	110	M14	1	170912	5	1	
195	110	M15	1	170912	5	1	
196	110	M1	2	011012	2	1	
197	110	M2	2	011012	2	1	
198	110	M3	2	011012	2	1	

199	110	M4	2	011012	1	1	
200	110	M5	2	011012	1	1	
201	110	M6	2	011012	1	1	
202	110	M7	2	011012	2	1	
203	110	M8	2	011012	2	1	
204	110	M9	2	011012	2	1	
205	110	M10	2	011012	1	1	
206	110	M11	2	011012	2	1	
207	110	M12	2	011012	1	1	
208	110	M13	2	011012	1	1	
209	110	M14	2	011012	1	1	
210	110	M15	2	011012	2	1	
211	110	M1	2	151012	2	1	
212	110	M2	2	151012	2	1	
213	110	M3	2	151012	2	1	
214	110	M4	2	151012	2	1	
215	110	M5	2	151012	2	1	
216	110	M6	2	151012	2	1	
217	110	M7	2	151012	2	1	
218	110	M8	2	151012	2	1	
219	110	M9	2	151012	2	1	
220	110	M10	2	151012	2	1	
221	110	M11	2	151012	2	1	
222	110	M12	2	151012	2	1	
223	110	M13	2	151012	2	1	
224	110	M14	2	151012	2	1	
225	110	M15	2	151012	2	1	
226	110	M1	3	291012	2	1	
227	110	M2	3	291012	1	1	
228	110	M3	3	291012	2	1	
229	110	M4	2	291012	2	1	
230	110	M5	2	291012	2	1	
231	110	M6	3	291012	1	1	
232	110	M7	2	291012	2	1	
233	110	M8	3	291012	2	1	
234	110	M9	3	291012	2	1	
235	110	M10	2	291012	2	1	
236	110	M11	3	291012	2	1	
237	110	M12	3	291012	2	1	
238	110	M13	3	291012	2	1	
239	110	M14	2	291012	2	1	
240	110	M15	3	291012	2	1	

241	110	M1	3	121112	3	1	
242	110	M2	3	121112	2	1	
243	110	M3	3	121112	3	1	
244	110	M4	3	121112	3	1	
245	110	M5	2	121112	3	1	
246	110	M6	3	121112	3	1	
247	110	M7	3	121112	3	1	
248	110	M8	3	121112	2	1	
249	110	M9	3	121112	2	1	
250	110	M10	3	121112	3	1	
251	110	M11	3	121112	4	1	
252	110	M12	2	121112	2	1	
253	110	M13	3	121112	3	1	
254	110	M14	3	121112	2	1	
255	110	M15	3	121112	4	1	
256	110	M1	3	261112	5	1	
257	110	M2	3	261112	5	1	
258	110	M3	3	261112	5	1	
259	110	M4	3	261112	5	1	
260	110	M5	3	261112	4	1	
261	110	M6	3	261112	5	1	
262	110	M7	3	261112	5	1	
263	110	M8	3	261112	5	1	
264	110	M9	3	261112	5	1	
265	110	M10	3	261112	5	1	
266	110	M11	3	261112	5	1	
267	110	M12	3	261112	5	1	
268	110	M13	3	261112	5	1	
269	110	M14	3	261112	5	1	
270	110	M15	3	261112	5	1	
271	110	M1	3	101212	5	1	
272	110	M2	3	101212	5	1	
273	110	M3	3	101212	5	1	
274	110	M4	3	101212	5	1	
275	110	M5	3	101212	5	1	
276	110	M6	3	101212	5	1	
277	110	M7	3	101212	5	1	
278	110	M8	3	101212	5	1	
279	110	M9	3	101212	5	1	
280	110	M10	3	101212	5	1	
281	110	M11	3	101212	5	1	
282	110	M12	3	101212	5	1	

283	110	M13	3	101212	5	1	
284	110	M14	3	101212	5	1	
285	110	M15	3	101212	5	1	

Tablica 3.6.3. Rezultati kontrolnog fenološkog motrenja (572012.phc)

Redni broj	Ploha	Broj stabla	Događaj	Datum	Rezultat	Metoda	Oznaka tima	Napomene
1	110	M1	1	300712	5	1	00001	
2	110	M2	1	300712	5	1	00001	
3	110	M3	1	300712	5	1	00001	
4	110	M4	1	300712	5	1	00001	
5	110	M5	1	300712	5	1	00001	
6	110	M6	1	300712	5	1	00001	
7	110	M7	1	300712	5	1	00001	
8	110	M8	1	300712	5	1	00001	
9	110	M9	1	300712	5	1	00001	
10	110	M10	1	300712	5	1	00001	
11	110	M11	1	300712	5	1	00001	
12	110	M12	1	300712	5	1	00001	
13	110	M13	1	300712	5	1	00001	
14	110	M14	1	300712	5	1	00001	
15	110	M15	1	300712	5	1	00001	

3.7. Otopina tla

Tijekom 2012 godine na plohama Sljeme, Jastrebarski lugovi i Poreč iz lizimetara su uzimani uzorci otopine tla. Uzorkovanje je bilo mjesečno na pokusnoj plohi Sljeme i ukupno je analiziran 21 uzorak, a na lokalitetima Jastrebarski lugovi i Poreč uzorkovanje je obavljeno u duljim intervalima zbog uhodavanja i izmjene dijelova opreme. Nakon analize i obrade uzoraka zaključeno je kako je 85% uzoraka otopine tla na području Medvednice „kiselo“. (tablica 3.7.1.).

Tablica 3.7.1. Podaci kvalitete otopine tla na plohama intenzivnog motrenja (572012.ssm)

Redni broj	Br. plohe	Lizimetar	Datum početka	Datum kraja	Dana	Vol.	pH	Cond.	K	Ca	Mg	$N\text{-}NO_3$	$S\text{-}SO_4$
						ml		µS/Cm	mg/l				
1	103	2	1.1.2012	18.1.2012	17	2300	4,68	71,70	1,6889	4,4715	1,0522	2,5444	5,2250
2	103	2	18.1.2012	26.02 2012.	39	6800	4,85	68,10	1,8270	6,8410	1,5077	2,6823	5,4536
3	103	2	26.02 2012.	29.3.2012	31	4200	4,73	100,90	2,9495	7,2392	1,7618	6,4921	5,7604
4	103	2	29.3.2012	24.4.2012	26	200	6,24	102,80	4,2848	6,3983	1,0972	7,8707	5,7336
5	103	2	24.4.2012	11.5.2012	17	2100	5,21	79,20	5,3768	6,0370	1,4744	2,8101	4,8072
6	103	2	11.5.2012	12.6.2012	32	4400	4,55	103,10	2,4017	10,1262	2,3182	7,5047	6,8901
7	103	2	12.6.2012	30.6.2012	14	770	5,42	100,00	2,4492	10,7728	2,2989	4,3417	7,2206
8	103	2	30.6.2012	10.7.2012	10	3050	4,63	93,10	3,4376	8,1525	2,2286	3,9640	4,4694
9	103	2	10.7.2012	28.9.2012	59	12200	4,71	93,40	3,3728	6,7874	1,4022	6,3924	3,6906
10	103	2	28.9.2012	5.10.2012	7	1200	6,80	221,00	4,2375	32,8440	3,2551	22,7057	10,5404
11	103	2	5.10.2012	17.10.2012	12	2300	5,15	60,90	3,5239	10,0111	1,9122	3,2507	7,5871
12	103	2	17.10.2012	9.11.2012	23	5400	4,96	65,90	1,8403	5,8954	1,3156	0,7648	8,0667
13	103	2	9.11.2012	28.12.2012	49	18800	5,49	50,5	1,1097		1,2147	0,0313	7,3381
14	110	2	1.1.2012	26.3.2012	86	>20000	5,11	62,4	2,5669	3,2222	1,2323	1,0933	11,0064
15	110	2	26.3.2012	25.4.2012	30		6,36	50,6	3,9510	2,7364	1,3628	0,4329	5,0782
16	110	2	25.4.2012	12.5.2012	17		4,55	103,10	2,4017	10,1262	2,3182	7,5047	6,8901
17	110	2	12.5.2012	13.6.2012	32		5,50	55,30	3,1891	4,7957	1,3427	0,6460	4,4335
18	110	2	13.6.2012	10.8.2012	58		4,74	32,60	3,1185	5,9212	1,2766	1,9201	3,2732
19	110	2	10.8.2012	25.9.2012	46		4,72	32,90	3,6768	2,5260	0,7645	0,3376	2,4808
20	110	2	25.9.2012	20.11.2012	56		4,99	32,40	2,9911	35,9340	3,7687	2,1691	7,0593
21	110	2	20.11.2012	28.12.2012.	38		5,06	34,80	1,7047		0,1021	0,0000	0,1630
22	108	2	1.1.2012	14.6.2012	165	>20000	7,02	95,70	0,4019	8,5034	1,3206	1,9810	8,4246
23	108	2	14.6.2012	14.11.2012	153	>20000	7,02	131,60	0,5225	15,8759	1,3245	6,1183	5,1788

Tablica 3.7.2. Tablica 3.7.1. Podaci kvalitete otopine tla na plohama intenzivnog motrenja (572012.ssm) - nastavak

Redni broj	Alkalinitet	Al	DOC	Na	$N\text{-}NH_4$	Cl	Ukupni N	Fe	Mn	Napomene
	µSmolc/L	mg/l								
1				0,7071	0,1402	5,0124				
2				0,7734	0,2410	4,3083				
3				1,4765	0,5134	3,1324				
4				1,0736	2,0539	3,4189				
5				1,3931	0,6559	2,1057				
6				1,3306	0,1805	3,4823				
7				1,8897	0,1048	2,4755				
8				1,4694	0,0000	3,0836				
9				0,9079	0,1507	2,2236				
10				3,9082	0,0000	13,2029				
11				6,1018	0,0171	9,1059				
12				1,3732	0,0000	3,7200				
13				3,07	0,0000	2,0060				

14				1,6630	1,6196	3,7610				
15				2,2201	0,4463	5,2829				
16				1,3306	0,1805	3,4823				
17				2,2595	0,4104	2,4922				
18				1,4360	0,0000	1,7318				
19				1,4570	0,0000	1,0372				
20				3,9004	0,0000	1,8698				
21				1,2291	1,8911	1,9648				
22				2,0543	0,2444	3,6102				
23				1,7402	0,0000	3,3861				

3.8. Meteorološka mjerenja

U 2012. godini nastavljena su meteorološka mjerenja na istraživačkoj stanici za intenzivno praćenje tokova CO_2 između šume i atmosfere koja se nalazi u blizini plohe intenzivnog motrenja 110 - Jastrebarski lugovi (slika 3.8.1).

Slika 3.8.1. Stanica za intenzivno praćenje tokova CO_2 između šume i atmosfere u odsjeku 37a, g.j. „Jastrebarski lugovi“s meteorološkom stanicom.

Sastavni dio istraživačke stanice je i meteorološka stanica u sklopu koje se mjere različite meteorološke varijable. Za potrebe ICP programa mjere se sve obvezne: (temperatura zraka - AT, vlaga zraka - RH, ukupne oborine - PR, brzina i smjer vjetra - WS, WD, ukupno dolazno zračenje - SR) i neke opcionalne (temperatura tla na tri dubine - ST, udio vlage u tlu - WC) meteorološke varijable. Oprema koja se koristi je sljedeća: za mjerenje brzine i smjera vjetra 3D anemometar 81000V, R.M. Young, za temperaturu i vlagu zraka HMP45AC, Vaisala, za ukupne oborine 52202 tipping bucket rain gauge, R.M. Young, za temperaturu tla termometri na tri dubine (5, 15 i 25 cm), za udio vlage u tlu dva reflektometra CS616, Campbell Scientific, a za ukupno dolazno zračenje CMP3, Kipp i Zonen. Sve varijable se mjere pri frekvenciji od 0,1 Hz pomoću CR1000 datalogera (Campbell Sci. Inc. Lincoln Nebraska, USA), usrednjavaju se u polusatne prosjeke te se pohranjuju u memoriju datalogera. Podaci se svakih sat vremena pretaču putem modema na računalo u Institutu.

a)

b)

c)

d)

Slika 3.8.2a-d. Meteorološki instrumenti (u zagradi su oznake varijabli prema ICP protokolu) kojima se mjeri: a) brzina i smjer vjetra (WS, WD), koncentracija CO_2 i vodene pare u zraku; b) temperatura i vlaga zraka (AT, RH), ukupno dolazno zračenje (SR), gustoća protoka dolaznog i reflektiranog fotosintetskog zračenja, neto zračenje; c) ukupne oborine (PR), temperatura lišća; d) temperatura tla termometrima na tri dubine (ST), udio vlage u tlu (WC), protok topline u tlu, i respiracija tla posebno konstruiranim sustavom s komorama.
Meteorološki podaci koji su prikupljeni tokom 2012. g. dani su u tablicama 3.8.1.- 3.8.5.

Tablica 3.8.1. Ploha intenzivnog motrenja na kojoj su obavljena meteorološka mjerenja (572012.plm)

Redni broj	Zemlja	Ploha	Instrum.	Lokacija	Z.širina	Z.dužina	Nad. visina	Parametar	Vertikalna pozicija	Snimanje	Sken.
1	57	110	1	O	+453710	+154116	3	AT	27	50	30
2	57	110	1	O	+453710	+154116	3	RH	27	50	30
3	57	110	2	O	+453710	+154116	3	PR	23	50	30
4	57	110	3	O	+453710	+154116	3	WS	23	50	0,05
5	57	110	3	O	+453710	+154116	3	WD	23	50	0,05
6	57	110	4	O	+453710	+154116	3	SR	23	50	30
7	57	110	5	O	+453710	+154116	3	ST	-0,05	50	30
8	57	110	6	O	+453710	+154116	3	WC	-0,15	50	30

Tablica 3.8.2. Ploha intenzivnog motrenja na kojoj su obavljena meteorološka mjerenja (572012.plm- nastavak)

Redni broj	Sprem.	profile_pit	Datum početka	Datum završetka	Mjereno dana	Opis instrumenata	Napomene
1	30		010112	311212	365	HMP45A	Vaisala Tair/Rh; EC

							tower
2	30		010112	311212	365	HMP45A	Vaisala Tair/Rh; EC tower
3	30		010112	311212	365	Young 52202	R.M. Young Tipping Bucket; EC tower
4	30		010112	311212	365	Young 81000V	R.M. Young Sonic anemometer; EC tower
5	30		010112	311212	365	Young 81000V	R.M. Young Sonic anemometer; EC tower
6	30		010112	311212	365	CMP3	Kipp & Zonen Pyranometer CMP3; EC tower
7	30		010112	311212	365	thermocouple	copper/konst. thermocouple; EC tower
8	30	1	010112	311212	365	TDR	CS 616 Time domain reflectom.; EC tower

Tablica 3.8.3.Obavezni meteorološki parametri (572012.mem)

Redni broj	Ploha	Instrument	Parametar	Datum	Prosječna vrijednost	Min	Max	Potpunost	Izvor	Status
1	110	1	AT	010112	-0.3	-2.5	3.1	100	2	1
2	110	1	AT	020112	4.9	-3.8	12.4	100	2	2
3	110	1	AT	030112	7.3	5.7	9.1	100	2	2
4	110	1	AT	040112	7.9	4.6	11.9	100	2	2
5	110	1	AT	050112	4.5	0.3	8.4	100	2	2
6	110	1	AT	060112	5.3	-0.6	9.3	100	2	2
7	110	1	AT	070112	2.1	-3.5	6.4	100	2	2
8	110	1	AT	080112	2.1	-2.7	7.5	100	2	2
9	110	1	AT	090112	3.2	-1.6	9.1	100	2	2
10	110	1	AT	100112	3.5	-1.2	8.9	100	2	2
11	110	1	AT	110112	0.6	-3.5	7.3	100	2	2
12	110	1	AT	120112	0.6	-5.0	9.4	100	2	2
13	110	1	AT	130112	1.1	-3.8	6.7	100	2	2
14	110	1	AT	140112	0.3	-6.9	8.3	100	2	2
15	110	1	AT	150112	-2.4	-8.6	4.0	100	2	2
16	110	1	AT	160112	-3.9	-9.3	2.5	100	2	2
17	110	1	AT	170112	-2.6	-8.9	2.4	100	2	2
18	110	1	AT	180112	1.0	-3.8	7.4	100	2	2
19	110	1	AT	190112	3.2	-5.4	10.0	100	2	2
20	110	1	AT	200112	6.5	-0.7	10.3	100	2	2
21	110	1	AT	210112	1.9	-2.7	6.9	100	2	2
22	110	1	AT	220112	7.6	1.9	12.6	100	2	2
23	110	1	AT	230112	8.0	3.9	13.1	100	2	2
24	110	1	AT	240112	3.7	0.1	6.0	100	2	2
25	110	1	AT	250112	1.6	-1.4	5.2	100	2	2

26	110	1	AT	260112	-1.6	-7.0	3.5	100	2	2
27	110	1	AT	270112	-3.4	-8.9	1.8	100	2	2
28	110	1	AT	280112	-3.2	-9.3	1.6	100	2	2
29	110	1	AT	290112	-2.6	-3.4	-0.9	100	2	2
30	110	1	AT	300112	-0.2	-3.0	0.0	100	2	2
31	110	1	AT	310112	-6.0	-9.1	0.0	100	2	2
32	110	1	AT	010212	-4.1	-5.6	-2.3	100	2	2
33	110	1	AT	020212	-6.2	-7.3	-4.8	100	2	2
34	110	1	AT	030212	-9.3	-11.2	-7.2	100	2	2
35	110	1	AT	040212	-10.1	-11.0	-9.1	100	2	2
36	110	1	AT	050212	-10.0	-12.4	-7.8	100	2	2
37	110	1	AT	060212	-10.0	-10.8	-9.4	100	2	2
38	110	1	AT	070212	-8.6	-11.0	-6.5	100	2	2
39	110	1	AT	080212	-7.9	-13.8	-4.1	100	2	2
40	110	1	AT	090212	-12.9	-20.7	-5.2	100	2	2
41	110	1	AT	100212	-9.8	-13.4	-6.5	100	2	2
42	110	1	AT	110212	-9.3	-10.6	-8.3	100	2	2
43	110	1	AT	120212	-8.6	-9.6	-7.5	100	2	2
44	110	1	AT	130212	-7.9	-12.8	0.0	100	2	2
45	110	1	AT	140212	-7.8	-17.3	0.2	100	2	2
46	110	1	AT	150212	-2.6	-12.6	5.6	100	2	2
47	110	1	AT	160212	1.4	-5.3	6.7	100	2	2
48	110	1	AT	170212	-0.7	-9.4	9.0	100	2	2
49	110	1	AT	180212	0.7	-7.3	8.8	100	2	2
50	110	1	AT	190212	1.8	-4.8	9.3	100	2	2
51	110	1	AT	200212	1.4	-0.1	4.5	100	2	2
52	110	1	AT	210212	2.7	0.6	5.8	100	2	2
53	110	1	AT	220212	2.1	-2.7	7.6	100	2	2
54	110	1	AT	230212	1.6	-6.6	9.0	100	2	2
55	110	1	AT	240212	7.1	-0.2	17.1	100	2	2
56	110	1	AT	250212	7.4	0.0	16.1	100	2	2
57	110	1	AT	260212	5.4	1.0	9.1	100	2	2
58	110	1	AT	270212	2.7	-1.5	7.2	100	2	2
59	110	1	AT	280212	2.8	-4.2	10.0	100	2	2
60	110	1	AT	290212	9.7	2.9	17.7	100	2	2
61	110	1	AT	010312	7.7	4.3	13.8	100	2	2
62	110	1	AT	020312	10.2	-0.7	20.6	100	2	2
63	110	1	AT	030312	7.6	3.4	11.2	100	2	2
64	110	1	AT	040312	4.6	-2.3	10.9	100	2	2

65	110	1	AT	050312	6.0	1.6	10.3	100	2	2
66	110	1	AT	060312	4.2	-2.7	9.5	100	2	2
67	110	1	AT	070312	1.9	-2.4	6.9	100	2	2
68	110	1	AT	080312	3.3	-4.7	10.5	100	2	2
69	110	1	AT	090312	6.1	0.6	10.4	100	2	2
70	110	1	AT	100312	3.9	-3.9	10.6	100	2	2
71	110	1	AT	110312	5.4	-2.8	11.8	100	2	2
72	110	1	AT	120312	5.9	3.7	8.3	100	2	2
73	110	1	AT	130312	7.5	3.9	11.4	100	2	2
74	110	1	AT	140312	6.5	-0.9	13.8	100	2	2
75	110	1	AT	150312	7.0	0.5	13.6	100	2	2
76	110	1	AT	160312	10.1	-1.8	22.4	100	2	2
77	110	1	AT	170312	12.7	1.3	21.0	100	2	2
78	110	1	AT	180312	12.6	6.9	16.3	100	2	2
79	110	1	AT	190312	12.4	4.2	18.9	100	2	2
80	110	1	AT	200312	11.8	7.5	17.2	100	2	2
81	110	1	AT	210312	12.0	3.7	19.6	100	2	2
82	110	1	AT	220312	12.1	3.1	20.4	100	2	2
83	110	1	AT	230312	13.8	2.2	23.7	100	2	2
84	110	1	AT	240312	15.0	5.3	22.0	100	2	2
85	110	1	AT	250312	14.9	10.6	20.6	100	2	2
86	110	1	AT	260312	12.4	5.3	18.1	100	2	2
87	110	1	AT	270312	10.3	0.1	19.2	100	2	2
88	110	1	AT	280312	12.4	4.2	20.2	100	2	2
89	110	1	AT	290312	14.7	2.9	23.0	100	2	2
90	110	1	AT	300312	12.7	7.2	19.1	100	2	2
91	110	1	AT	310312	12.5	1.3	22.0	100	2	2
92	110	1	AT	010412	5.1	-0.1	10.1	100	2	2
93	110	1	AT	020412	8.5	-3.6	19.5	100	2	2
94	110	1	AT	030412	13.7	8.8	18.5	100	2	2
95	110	1	AT	040412	16.5	11.1	21.9	100	2	2
96	110	1	AT	050412	14.7	7.3	23.3	100	2	2
97	110	1	AT	060412	13.5	10.5	17.7	100	2	2
98	110	1	AT	070412	12.3	7.5	16.7	100	2	2
99	110	1	AT	080412	4.7	1.6	7.3	100	2	2
100	110	1	AT	090412	3.9	-0.6	9.1	100	2	2
101	110	1	AT	100412	7.6	-3.1	17.2	100	2	2
102	110	1	AT	110412	11.4	6.3	16.4	100	2	2
103	110	1	AT	120412	11.2	6.8	16.6	100	2	2
104	110	1	AT	130412	8.9	2.7	14.7	100	2	2
105	110	1	AT	140412	10.8	8.8	12.1	100	2	2
106	110	1	AT	150412	1.8	0.0	11.5	100	2	2
107	110	1	AT	160412	10.6	0.0	13.5	100	2	2
108	110	1	AT	170412	8.4	6.7	10.3	100	2	2
109	110	1	AT	180412	9.2	5.3	13.7	100	2	2
110	110	1	AT	190412	10.8	5.1	16.2	100	2	2
111	110	1	AT	200412	10.7	2.5	16.5	100	2	2
112	110	1	AT	210412	11.3	4.4	17.1	100	2	2
113	110	1	AT	220412	12.2	6.5	18.5	100	2	2

114	110	1	AT	230412	8.6	4.2	12.4	100	2	2
115	110	1	AT	240412	10.6	3.3	19.0	100	2	2
116	110	1	AT	250412	13.1	7.8	20.0	100	2	2
117	110	1	AT	260412	16.2	9.5	21.7	100	2	2
118	110	1	AT	270412	18.9	8.8	26.5	100	2	2
119	110	1	AT	280412	19.6	9.2	28.1	100	2	2
120	110	1	AT	290412	20.6	10.3	29.8	100	2	2
121	110	1	AT	300412	18.8	9.3	28.0	100	2	2
122	110	1	AT	010512	20.5	10.4	28.6	100	2	2
123	110	1	AT	020512	20.0	12.7	28.4	100	2	2
124	110	1	AT	030512	18.6	10.9	26.5	100	2	2
125	110	1	AT	040512	17.8	11.0	23.8	100	2	2
126	110	1	AT	050512	16.0	8.1	22.3	100	2	2
127	110	1	AT	060512	15.9	10.2	19.2	100	2	2
128	110	1	AT	070512	12.4	8.1	14.1	100	2	2
129	110	1	AT	080512	13.9	4.0	22.1	100	2	2
130	110	1	AT	090512	16.7	8.3	24.7	100	2	2
131	110	1	AT	100512	17.6	8.7	24.8	100	2	2
132	110	1	AT	110512	18.6	9.1	27.0	100	2	2
133	110	1	AT	120512	18.5	9.8	28.6	100	2	2
134	110	1	AT	130512	7.8	5.2	10.8	100	2	2
135	110	1	AT	140512	9.7	6.7	12.0	100	2	2
136	110	1	AT	150512	12.3	7.2	16.4	100	2	2
137	110	1	AT	160512	0.1	0.0	7.0	100	2	2
138	110	1	AT	170512	12.0	0.0	16.7	100	2	2
139	110	1	AT	180512	10.6	1.8	17.3	100	2	2
140	110	1	AT	190512	13.1	2.8	21.2	100	2	2
141	110	1	AT	200512	16.6	5.1	25.4	100	2	2
142	110	1	AT	210512	15.7	13.5	19.5	100	2	2
143	110	1	AT	220512	13.4	11.2	16.0	100	2	2
144	110	1	AT	230512	15.7	12.1	22.6	100	2	2
145	110	1	AT	240512	19.1	13.8	26.5	100	2	2
146	110	1	AT	250512	15.9	10.3	20.7	100	2	2
147	110	1	AT	260512	14.3	7.4	20.0	100	2	2
148	110	1	AT	270512	14.7	5.4	22.3	100	2	2
149	110	1	AT	280512	15.7	6.9	22.8	100	2	2
150	110	1	AT	290512	16.8	9.9	22.8	100	2	2
151	110	1	AT	300512	19.3	11.1	26.3	100	2	2
152	110	1	AT	310512	14.7	0.0	24.0	100	2	2
153	110	1	AT	010612	17.1	13.2	21.8	100	2	2
154	110	1	AT	020612	16.8	13.5	21.7	100	2	2
155	110	1	AT	030612	21.0	15.1	25.9	100	2	2
156	110	1	AT	040612	18.6	14.1	24.5	100	2	2
157	110	1	AT	050612	15.5	11.7	20.8	100	2	2
158	110	1	AT	060612	15.8	6.9	23.3	100	2	2
159	110	1	AT	070612	19.6	11.2	25.9	100	2	2
160	110	1	AT	080612	23.2	18.4	28.0	100	2	2
161	110	1	AT	090612	20.1	15.4	25.1	100	2	2
162	110	1	AT	100612	19.7	16.3	24.9	100	2	2

163	110	1	AT	110612	18.5	14.4	23.8	100	2	2
164	110	1	AT	120612	16.2	12.9	19.3	100	2	2
165	110	1	AT	130612	16.0	11.3	23.4	100	2	2
166	110	1	AT	140612	17.2	11.0	23.2	100	2	2
167	110	1	AT	150612	19.6	10.1	27.3	100	2	2
168	110	1	AT	160612	21.5	12.6	28.8	100	2	2
169	110	1	AT	170612	22.9	14.3	29.6	100	2	2
170	110	1	AT	180612	23.8	15.4	30.7	100	2	2
171	110	1	AT	190612	24.5	16.7	30.8	100	2	2
172	110	1	AT	200612	25.4	17.3	32.4	100	2	2
173	110	1	AT	210612	0.5	0.0	23.9	100	2	2
174	110	1	AT	220612	0.0	0.0	0.0	100	2	2
175	110	1	AT	230612	0.0	0.0	0.0	100	2	2
176	110	1	AT	240612	22.6	0.0	28.3	100	2	2
177	110	1	AT	250612	19.6	15.6	27.8	100	2	2
178	110	1	AT	260612	19.6	14.5	24.7	100	2	2
179	110	1	AT	270612	19.9	11.6	26.5	100	2	2
180	110	1	AT	280612	0.3	0.0	16.6	100	2	2
181	110	1	AT	290612	24.2	0.0	32.6	100	2	2
182	110	1	AT	300612	26.3	17.7	34.1	100	2	2
183	110	1	AT	010712	26.5	18.2	34.1	100	2	2
184	110	1	AT	020712	26.5	19.1	32.6	100	2	2
185	110	1	AT	030712	25.8	19.9	33.1	100	2	2
186	110	1	AT	040712	25.3	18.1	31.8	100	2	2
187	110	1	AT	050712	24.2	19.1	31.6	100	2	2
188	110	1	AT	060712	22.7	17.1	31.7	100	2	2
189	110	1	AT	070712	24.2	15.8	32.0	100	2	2
190	110	1	AT	080712	24.7	15.3	32.6	100	2	2
191	110	1	AT	090712	25.5	16.9	32.9	100	2	2
192	110	1	AT	100712	23.7	17.7	29.1	100	2	2
193	110	1	AT	110712	23.7	16.3	31.2	100	2	2
194	110	1	AT	120712	20.9	16.1	25.1	100	2	2
195	110	1	AT	130712	0.4	0.0	20.4	100	2	2
196	110	1	AT	140712	0.0	0.0	0.0	100	2	2
197	110	1	AT	150712	0.0	0.0	0.0	100	2	2
198	110	1	AT	160712	17.0	0.0	23.6	100	2	2
199	110	1	AT	170712	18.8	9.9	25.9	100	2	2
200	110	1	AT	180712	20.6	11.8	27.9	100	2	2
201	110	1	AT	190712	0.3	0.0	15.9	100	2	2
202	110	1	AT	200712	23.6	0.0	31.4	100	2	2
203	110	1	AT	210712	18.5	14.0	22.3	100	2	2
204	110	1	AT	220712	0.3	0.0	14.8	100	2	2
205	110	1	AT	230712	18.2	0.0	22.9	100	2	2
206	110	1	AT	240712	21.0	17.1	25.8	100	2	2
207	110	1	AT	250712	20.0	17.1	24.6	100	2	2
208	110	1	AT	260712	21.3	14.8	29.0	100	2	2
209	110	1	AT	270712	23.6	16.5	30.4	100	2	2
210	110	1	AT	280712	24.8	15.7	32.9	100	2	2
211	110	1	AT	290712	24.2	17.4	32.5	100	2	2

212	110	1	AT	300712	22.7	16.2	27.5	100	2	2
213	110	1	AT	310712	22.4	17.2	27.3	100	2	2
214	110	1	AT	010812	22.4	14.1	30.2	100	2	2
215	110	1	AT	020812	23.4	14.3	31.5	100	2	2
216	110	1	AT	030812	24.6	14.8	33.8	100	2	2
217	110	1	AT	040812	24.8	16.7	32.1	100	2	2
218	110	1	AT	050812	26.4	17.1	35.5	100	2	2
219	110	1	AT	060812	26.8	17.5	36.0	100	2	2
220	110	1	AT	070812	24.6	20.0	29.1	100	2	2
221	110	1	AT	080812	23.3	16.4	29.2	100	2	2
222	110	1	AT	090812	21.9	13.6	28.4	100	2	2
223	110	1	AT	100812	21.1	14.0	26.5	100	2	2
224	110	1	AT	110812	19.3	13.6	24.4	100	2	2
225	110	1	AT	120812	16.5	8.2	23.9	100	2	2
226	110	1	AT	130812	18.8	9.9	26.5	100	2	2
227	110	1	AT	140812	20.2	12.1	27.7	100	2	2
228	110	1	AT	150812	22.1	12.3	31.2	100	2	2
229	110	1	AT	160812	21.8	14.9	30.8	100	2	2
230	110	1	AT	170812	23.5	17.2	30.6	100	2	2
231	110	1	AT	180812	23.4	15.6	30.5	100	2	2
232	110	1	AT	190812	23.0	13.6	31.1	100	2	2
233	110	1	AT	200812	23.3	13.2	33.7	100	2	2
234	110	1	AT	210812	24.3	12.4	35.3	100	2	2
235	110	1	AT	220812	26.2	14.6	37.6	100	2	2
236	110	1	AT	230812	25.8	16.6	34.1	100	2	2
237	110	1	AT	240812	27.2	15.8	37.4	100	2	2
238	110	1	AT	250812	26.5	15.2	36.6	100	2	2
239	110	1	AT	260812	18.5	13.2	28.0	100	2	2
240	110	1	AT	270812	17.6	10.9	24.7	100	2	2
241	110	1	AT	280812	18.5	7.7	27.7	100	2	2
242	110	1	AT	290812	20.5	11.3	29.1	100	2	2
243	110	1	AT	300812	21.0	10.9	30.5	100	2	2
244	110	1	AT	310812	18.9	0.0	26.7	100	2	2
245	110	1	AT	010912	14.8	14.0	15.9	100	2	2
246	110	1	AT	020912	17.8	14.7	22.9	100	2	2
247	110	1	AT	030912	20.9	13.3	26.8	100	2	2
248	110	1	AT	040912	21.4	17.5	25.7	100	2	2
249	110	1	AT	050912	20.3	15.9	25.5	100	2	2
250	110	1	AT	060912	18.7	16.8	23.2	100	2	2
251	110	1	AT	070912	16.6	10.7	22.6	100	2	2
252	110	1	AT	080912	16.5	7.4	25.8	100	2	2
253	110	1	AT	090912	18.8	9.1	28.7	100	2	2
254	110	1	AT	100912	20.1	11.5	29.4	100	2	2
255	110	1	AT	110912	19.9	12.2	28.3	100	2	2
256	110	1	AT	120912	19.1	12.9	25.4	100	2	2
257	110	1	AT	130912	10.3	9.0	14.1	100	2	2
258	110	1	AT	140912	0.2	0.0	10.9	100	2	2
259	110	1	AT	150912	0.0	0.0	0.0	100	2	2
260	110	1	AT	160912	0.0	0.0	0.0	100	2	2

261	110	1	AT	170912	14.4	0.0	22.6	100	2	2
262	110	1	AT	180912	16.3	9.3	23.8	100	2	2
263	110	1	AT	190912	15.1	10.1	22.0	100	2	2
264	110	1	AT	200912	11.6	5.5	17.7	100	2	2
265	110	1	AT	210912	10.2	1.6	19.1	100	2	2
266	110	1	AT	220912	0.1	0.0	7.0	100	2	2
267	110	1	AT	230912	0.0	0.0	0.0	100	2	2
268	110	1	AT	240912	17.1	0.0	24.8	100	2	2
269	110	1	AT	250912	18.3	11.8	24.7	100	2	2
270	110	1	AT	260912	18.2	9.8	25.7	100	2	2
271	110	1	AT	270912	0.3	0.0	16.4	100	2	2
272	110	1	AT	280912	14.6	0.0	16.7	100	2	2
273	110	1	AT	290912	15.8	13.5	19.0	100	2	2
274	110	1	AT	300912	16.1	14.0	19.2	100	2	2
275	110	1	AT	011012	17.7	13.1	23.2	100	2	2
276	110	1	AT	021012	16.1	14.8	18.4	100	2	2
277	110	1	AT	031012	2.0	0.0	14.7	100	2	2
278	110	1	AT	041012	9.8	0.0	23.1	100	2	2
279	110	1	AT	051012	15.5	10.8	21.6	100	2	2
280	110	1	AT	061012	15.2	8.0	23.6	100	2	2
281	110	1	AT	071012	15.5	10.5	23.0	100	2	2
282	110	1	AT	081012	10.3	5.7	15.7	100	2	2
283	110	1	AT	091012	9.7	4.6	16.4	100	2	2
284	110	1	AT	101012	10.0	7.3	12.4	100	2	2
285	110	1	AT	111012	9.9	8.5	11.6	100	2	2
286	110	1	AT	121012	11.1	10.0	12.3	100	2	2
287	110	1	AT	131012	11.7	10.6	13.5	100	2	2
288	110	1	AT	141012	12.0	10.6	13.5	100	2	2
289	110	1	AT	151012	12.9	0.0	17.9	100	2	2
290	110	1	AT	161012	10.7	6.1	15.0	100	2	2
291	110	1	AT	171012	11.2	4.9	19.7	100	2	2
292	110	1	AT	181012	14.2	6.3	22.1	100	2	2
293	110	1	AT	191012	12.9	4.1	24.7	100	2	2
294	110	1	AT	201012	12.2	2.3	24.5	100	2	2
295	110	1	AT	211012	11.3	5.0	19.5	100	2	2
296	110	1	AT	221012	8.8	5.7	14.8	100	2	2
297	110	1	AT	231012	8.9	7.0	10.1	100	2	2
298	110	1	AT	241012	9.6	8.5	10.9	100	2	2
299	110	1	AT	251012	10.1	5.1	14.9	100	2	2
300	110	1	AT	261012	7.0	4.1	8.7	100	2	2
301	110	1	AT	271012	0.2	0.0	8.6	100	2	2
302	110	1	AT	281012	1.1	-0.1	4.4	100	2	2
303	110	1	AT	291012	1.7	0.3	2.8	100	2	2
304	110	1	AT	301012	2.8	-1.3	8.5	100	2	2
305	110	1	AT	311012	4.7	-1.8	11.0	100	2	2
306	110	1	AT	011112	6.6	4.8	8.0	100	2	2
307	110	1	AT	021112	6.8	2.8	14.8	100	2	2
308	110	1	AT	031112	6.7	1.3	13.2	100	2	2
309	110	1	AT	041112	13.1	5.8	19.7	100	2	2

310	110	1	AT	051112	13.2	0.0	22.4	100	2	2
311	110	1	AT	061112	7.4	5.9	10.1	100	2	2
312	110	1	AT	071112	7.3	2.9	12.3	100	2	2
313	110	1	AT	081112	6.2	-0.7	14.7	100	2	2
314	110	1	AT	091112	7.6	2.5	14.8	100	2	2
315	110	1	AT	101112	4.9	-0.7	12.0	100	2	2
316	110	1	AT	111112	7.1	1.0	13.8	100	2	2
317	110	1	AT	121112	12.5	9.9	13.9	100	2	2
318	110	1	AT	131112	10.4	9.0	12.2	100	2	2
319	110	1	AT	141112	7.5	5.4	8.7	100	2	2
320	110	1	AT	151112	6.2	3.4	8.1	100	2	2
321	110	1	AT	161112	7.2	6.1	8.7	100	2	2
322	110	1	AT	171112	8.1	6.0	11.0	100	2	2
323	110	1	AT	181112	9.0	7.9	10.4	100	2	2
324	110	1	AT	191112	8.9	0.0	9.9	100	2	2
325	110	1	AT	201112	7.9	6.7	9.1	100	2	2
326	110	1	AT	211112	7.6	6.7	8.7	100	2	2
327	110	1	AT	221112	9.0	6.9	11.1	100	2	2
328	110	1	AT	231112	9.0	8.1	10.2	100	2	2
329	110	1	AT	241112	8.5	2.7	11.5	100	2	2
330	110	1	AT	251112	5.7	2.2	11.6	100	2	2
331	110	1	AT	261112	10.3	0.0	17.1	100	2	2
332	110	1	AT	271112	13.6	9.5	16.8	100	2	2
333	110	1	AT	281112	12.2	9.4	16.1	100	2	2
334	110	1	AT	291112	8.8	4.7	11.4	100	2	2
335	110	1	AT	301112	2.5	0.4	4.1	100	2	2
336	110	1	AT	011212	3.4	2.2	4.9	100	2	2
337	110	1	AT	021212	1.4	0.0	2.3	100	2	2
338	110	1	AT	031212	1.8	-1.3	6.9	100	2	2
339	110	1	AT	041212	0.1	-3.0	3.8	100	2	2
340	110	1	AT	051212	1.1	-1.0	6.3	100	2	2
341	110	1	AT	061212	-0.5	-1.8	0.3	100	2	2
342	110	1	AT	071212	-0.3	-2.6	1.7	100	2	2
343	110	1	AT	081212	-2.8	-4.3	-1.5	100	2	2
344	110	1	AT	091212	-3.4	-10.6	1.9	100	2	2
345	110	1	AT	101212	-7.8	-14.3	0.0	100	2	2
346	110	1	AT	111212	-4.1	-4.8	-3.3	100	2	2
347	110	1	AT	121212	-6.4	-11.6	-1.6	100	2	2
348	110	1	AT	131212	-9.4	-16.0	-3.6	100	2	2
349	110	1	AT	141212	-1.7	-6.4	3.9	100	2	2
350	110	1	AT	151212	6.2	-0.8	13.7	100	2	2
351	110	1	AT	161212	3.9	2.2	5.9	100	2	2
352	110	1	AT	171212	2.9	0.0	4.0	100	2	2
353	110	1	AT	181212	3.0	1.8	4.7	100	2	2
354	110	1	AT	191212	3.5	1.7	5.9	100	2	2
355	110	1	AT	201212	2.5	0.1	5.7	100	2	2

356	110	1	AT	211212	-0.2	-1.6	1.2	100	2	2
357	110	1	AT	221212	0.5	-0.3	1.6	100	2	2
358	110	1	AT	231212	1.0	-0.2	2.3	100	2	2
359	110	1	AT	241212	6.0	-0.9	13.1	100	2	2
360	110	1	AT	251212	13.2	11.7	14.8	100	2	2
361	110	1	AT	261212	10.0	4.6	13.2	100	2	2
362	110	1	AT	271212	3.3	-0.8	7.5	100	2	2
363	110	1	AT	281212	5.6	1.5	9.7	100	2	2
364	110	1	AT	291212	0.0	-2.9	5.0	100	2	2
365	110	1	AT	301212	-2.5	-5.9	2.0	100	2	2
366	110	1	AT	311212	-1.6	-6.5	4.7	100	2	2
367	110	1	RH	010112	95	90	96	100	2	2
368	110	1	RH	020112	76	56	96	100	2	2
369	110	1	RH	030112	86	69	95	100	2	2
370	110	1	RH	040112	79	55	95	100	2	2
371	110	1	RH	050112	80	52	96	100	2	2
372	110	1	RH	060112	53	28	95	100	2	2
373	110	1	RH	070112	56	36	76	100	2	2
374	110	1	RH	080112	70	49	91	100	2	2
375	110	1	RH	090112	65	36	91	100	2	2
376	110	1	RH	100112	69	43	91	100	2	2
377	110	1	RH	110112	80	50	93	100	2	2
378	110	1	RH	120112	78	44	94	100	2	2
379	110	1	RH	130112	81	59	94	100	2	2
380	110	1	RH	140112	62	17	94	100	2	2
381	110	1	RH	150112	62	31	85	100	2	2
382	110	1	RH	160112	67	34	92	100	2	2
383	110	1	RH	170112	66	46	86	100	2	2
384	110	1	RH	180112	61	31	79	100	2	2
385	110	1	RH	190112	62	43	84	100	2	2
386	110	1	RH	200112	68	51	94	100	2	2
387	110	1	RH	210112	75	50	95	100	2	2
388	110	1	RH	220112	59	47	71	100	2	2
389	110	1	RH	230112	74	51	89	100	2	2
390	110	1	RH	240112	88	73	94	100	2	2
391	110	1	RH	250112	57	32	93	100	2	2
392	110	1	RH	260112	59	31	90	100	2	2
393	110	1	RH	270112	67	0	91	100	2	2
394	110	1	RH	280112	73	53	92	100	2	2
395	110	1	RH	290112	71	63	81	100	2	2
396	110	1	RH	300112	4	0	66	100	2	2
397	110	1	RH	310112	57	0	75	100	2	2
398	110	1	RH	010212	49	34	64	100	2	2
399	110	1	RH	020212	44	33	61	100	2	2
400	110	1	RH	030212	70	41	83	100	2	2
401	110	1	RH	040212	81	79	83	100	2	2
402	110	1	RH	050212	66	44	84	100	2	2
403	110	1	RH	060212	69	51	83	100	2	2
404	110	1	RH	070212	74	60	83	100	2	2

405	110	1	RH	080212	58	48	69	100	2	2
406	110	1	RH	090212	64	42	82	100	2	2
407	110	1	RH	100212	73	60	83	100	2	2
408	110	1	RH	110212	77	63	83	100	2	2
409	110	1	RH	120212	84	79	88	100	2	2
410	110	1	RH	130212	70	0	87	100	2	2
411	110	1	RH	140212	66	37	87	100	2	2
412	110	1	RH	150212	60	33	88	100	2	2
413	110	1	RH	160212	44	20	77	100	2	2
414	110	1	RH	170212	59	34	81	100	2	2
415	110	1	RH	180212	66	35	91	100	2	2
416	110	1	RH	190212	78	59	93	100	2	2
417	110	1	RH	200212	90	75	95	100	2	2
418	110	1	RH	210212	59	37	86	100	2	2
419	110	1	RH	220212	62	33	92	100	2	2
420	110	1	RH	230212	62	32	92	100	2	2
421	110	1	RH	240212	56	26	86	100	2	2
422	110	1	RH	250212	61	32	86	100	2	2
423	110	1	RH	260212	77	50	93	100	2	2
424	110	1	RH	270212	53	30	93	100	2	2
425	110	1	RH	280212	58	32	89	100	2	2
426	110	1	RH	290212	51	33	75	100	2	2
427	110	1	RH	010312	74	55	92	100	2	2
428	110	1	RH	020312	65	30	95	100	2	2
429	110	1	RH	030312	62	48	79	100	2	2
430	110	1	RH	040312	52	18	92	100	2	2
431	110	1	RH	050312	40	26	56	100	2	2
432	110	1	RH	060312	43	26	72	100	2	2
433	110	1	RH	070312	41	24	62	100	2	2
434	110	1	RH	080312	40	21	72	100	2	2
435	110	1	RH	090312	41	26	65	100	2	2
436	110	1	RH	100312	52	27	90	100	2	2
437	110	1	RH	110312	50	31	76	100	2	2
438	110	1	RH	120312	75	40	92	100	2	2
439	110	1	RH	130312	75	56	90	100	2	2
440	110	1	RH	140312	70	40	95	100	2	2
441	110	1	RH	150312	62	35	89	100	2	2
442	110	1	RH	160312	50	16	94	100	2	2
443	110	1	RH	170312	37	17	71	100	2	2
444	110	1	RH	180312	48	40	59	100	2	2
445	110	1	RH	190312	56	31	88	100	2	2
446	110	1	RH	200312	50	31	74	100	2	2
447	110	1	RH	210312	50	28	80	100	2	2
448	110	1	RH	220312	48	23	86	100	2	2
449	110	1	RH	230312	41	11	87	100	2	2
450	110	1	RH	240312	37	16	66	100	2	2
451	110	1	RH	250312	45	26	63	100	2	2
452	110	1	RH	260312	36	11	76	100	2	2
453	110	1	RH	270312	33	14	70	100	2	2

454	110	1	RH	280312	46	28	63	100	2	2
455	110	1	RH	290312	46	19	91	100	2	2
456	110	1	RH	300312	49	28	69	100	2	2
457	110	1	RH	310312	53	21	93	100	2	2
458	110	1	RH	010412	55	23	94	100	2	2
459	110	1	RH	020412	45	17	88	100	2	2
460	110	1	RH	030412	48	34	67	100	2	2
461	110	1	RH	040412	53	33	72	100	2	2
462	110	1	RH	050412	71	32	94	100	2	2
463	110	1	RH	060412	81	59	95	100	2	2
464	110	1	RH	070412	72	48	93	100	2	2
465	110	1	RH	080412	70	48	90	100	2	2
466	110	1	RH	090412	43	22	75	100	2	2
467	110	1	RH	100412	47	19	91	100	2	2
468	110	1	RH	110412	58	31	94	100	2	2
469	110	1	RH	120412	62	32	94	100	2	2
470	110	1	RH	130412	71	48	91	100	2	2
471	110	1	RH	140412	71	59	92	100	2	2
472	110	1	RH	150412	15	0	93	100	2	2
473	110	1	RH	160412	76	0	95	100	2	2
474	110	1	RH	170412	48	37	67	100	2	2
475	110	1	RH	180412	58	35	83	100	2	2
476	110	1	RH	190412	61	36	91	100	2	2
477	110	1	RH	200412	64	35	92	100	2	2
478	110	1	RH	210412	61	34	90	100	2	2
479	110	1	RH	220412	60	37	81	100	2	2
480	110	1	RH	230412	80	62	94	100	2	2
481	110	1	RH	240412	73	30	95	100	2	2
482	110	1	RH	250412	61	25	94	100	2	2
483	110	1	RH	260412	43	24	67	100	2	2
484	110	1	RH	270412	42	22	69	100	2	2
485	110	1	RH	280412	50	19	92	100	2	2
486	110	1	RH	290412	45	12	87	100	2	2
487	110	1	RH	300412	53	21	90	100	2	2
488	110	1	RH	010512	50	18	91	100	2	2
489	110	1	RH	020512	56	22	89	100	2	2
490	110	1	RH	030512	59	19	95	100	2	2
491	110	1	RH	040512	57	29	92	100	2	2
492	110	1	RH	050512	55	27	94	100	2	2
493	110	1	RH	060512	59	49	74	100	2	2
494	110	1	RH	070512	88	74	95	100	2	2
495	110	1	RH	080512	68	33	96	100	2	2
496	110	1	RH	090512	60	25	94	100	2	2
497	110	1	RH	100512	55	25	92	100	2	2
498	110	1	RH	110512	58	26	94	100	2	2
499	110	1	RH	120512	69	36	95	100	2	2
500	110	1	RH	130512	87	75	94	100	2	2
501	110	1	RH	140512	63	52	93	100	2	2
502	110	1	RH	150512	61	46	93	100	2	2

503	110	1	RH	160512	2	0	94	100	2	2
504	110	1	RH	170512	43	0	69	100	2	2
505	110	1	RH	180512	53	29	89	100	2	2
506	110	1	RH	190512	59	31	93	100	2	2
507	110	1	RH	200512	64	31	95	100	2	2
508	110	1	RH	210512	85	67	95	100	2	2
509	110	1	RH	220512	91	79	95	100	2	2
510	110	1	RH	230512	88	67	95	100	2	2
511	110	1	RH	240512	69	32	94	100	2	2
512	110	1	RH	250512	63	40	93	100	2	2
513	110	1	RH	260512	64	33	94	100	2	2
514	110	1	RH	270512	65	29	95	100	2	2
515	110	1	RH	280512	62	22	95	100	2	2
516	110	1	RH	290512	66	38	94	100	2	2
517	110	1	RH	300512	61	29	94	100	2	2
518	110	1	RH	310512	55	0	95	100	2	2
519	110	1	RH	010612	87	60	95	100	2	2
520	110	1	RH	020612	84	63	95	100	2	2
521	110	1	RH	030612	63	41	94	100	2	2
522	110	1	RH	040612	69	36	94	100	2	2
523	110	1	RH	050612	77	46	93	100	2	2
524	110	1	RH	060612	64	47	93	100	2	2
525	110	1	RH	070612	60	40	92	100	2	2
526	110	1	RH	080612	47	38	60	100	2	2
527	110	1	RH	090612	71	56	89	100	2	2
528	110	1	RH	100612	66	44	92	100	2	2
529	110	1	RH	110612	75	50	95	100	2	2
530	110	1	RH	120612	89	67	95	100	2	2
531	110	1	RH	130612	75	35	95	100	2	2
532	110	1	RH	140612	72	40	95	100	2	2
533	110	1	RH	150612	65	32	95	100	2	2
534	110	1	RH	160612	66	34	95	100	2	2
535	110	1	RH	170612	66	35	95	100	2	2
536	110	1	RH	180612	65	38	93	100	2	2
537	110	1	RH	190612	67	38	95	100	2	2
538	110	1	RH	200612	70	41	94	100	2	2
539	110	1	RH	210612	2	0	79	100	2	2
540	110	1	RH	220612	0	0	0	100	2	2
541	110	1	RH	230612	0	0	0	100	2	2
542	110	1	RH	240612	57	0	85	100	2	2
543	110	1	RH	250612	81	49	95	100	2	2
544	110	1	RH	260612	65	33	94	100	2	2
545	110	1	RH	270612	64	34	94	100	2	2
546	110	1	RH	280612	2	0	78	100	2	2
547	110	1	RH	290612	62	0	94	100	2	2
548	110	1	RH	300612	61	32	94	100	2	2
549	110	1	RH	010712	62	31	93	100	2	2
550	110	1	RH	020712	64	39	93	100	2	2
551	110	1	RH	030712	71	36	93	100	2	2

552	110	1	RH	040712	66	36	95	100	2	2
553	110	1	RH	050712	72	37	94	100	2	2
554	110	1	RH	060712	74	37	95	100	2	2
555	110	1	RH	070712	60	31	95	100	2	2
556	110	1	RH	080712	55	27	94	100	2	2
557	110	1	RH	090712	47	29	75	100	2	2
558	110	1	RH	100712	59	40	79	100	2	2
559	110	1	RH	110712	60	31	92	100	2	2
560	110	1	RH	120712	69	46	95	100	2	2
561	110	1	RH	130712	1	0	45	100	2	2
562	110	1	RH	140712	0	0	0	100	2	2
563	110	1	RH	150712	0	0	0	100	2	2
564	110	1	RH	160712	62	0	93	100	2	2
565	110	1	RH	170712	54	29	88	100	2	2
566	110	1	RH	180712	54	27	84	100	2	2
567	110	1	RH	190712	2	0	75	100	2	2
568	110	1	RH	200712	50	0	83	100	2	2
569	110	1	RH	210712	65	51	92	100	2	2
570	110	1	RH	220712	2	0	93	100	2	2
571	110	1	RH	230712	58	0	88	100	2	2
572	110	1	RH	240712	62	44	90	100	2	2
573	110	1	RH	250712	82	57	95	100	2	2
574	110	1	RH	260712	76	46	95	100	2	2
575	110	1	RH	270712	68	36	95	100	2	2
576	110	1	RH	280712	68	33	95	100	2	2
577	110	1	RH	290712	64	32	94	100	2	2
578	110	1	RH	300712	58	40	91	100	2	2
579	110	1	RH	310712	54	33	80	100	2	2
580	110	1	RH	010812	59	28	94	100	2	2
581	110	1	RH	020812	58	25	94	100	2	2
582	110	1	RH	030812	58	23	94	100	2	2
583	110	1	RH	040812	60	30	93	100	2	2
584	110	1	RH	050812	56	21	94	100	2	2
585	110	1	RH	060812	46	15	84	100	2	2
586	110	1	RH	070812	41	26	67	100	2	2
587	110	1	RH	080812	44	25	70	100	2	2
588	110	1	RH	090812	52	28	89	100	2	2
589	110	1	RH	100812	54	28	94	100	2	2
590	110	1	RH	110812	52	29	76	100	2	2
591	110	1	RH	120812	58	28	93	100	2	2
592	110	1	RH	130812	54	27	90	100	2	2
593	110	1	RH	140812	49	26	87	100	2	2
594	110	1	RH	150812	50	27	79	100	2	2
595	110	1	RH	160812	69	31	93	100	2	2
596	110	1	RH	170812	61	28	95	100	2	2
597	110	1	RH	180812	51	25	84	100	2	2
598	110	1	RH	190812	50	21	91	100	2	2
599	110	1	RH	200812	50	18	92	100	2	2
600	110	1	RH	210812	48	15	91	100	2	2

601	110	1	RH	220812	47	13	92	100	2	2
602	110	1	RH	230812	53	25	86	100	2	2
603	110	1	RH	240812	44	13	91	100	2	2
604	110	1	RH	250812	39	11	82	100	2	2
605	110	1	RH	260812	70	31	94	100	2	2
606	110	1	RH	270812	65	28	96	100	2	2
607	110	1	RH	280812	62	27	96	100	2	2
608	110	1	RH	290812	59	24	95	100	2	2
609	110	1	RH	300812	58	18	95	100	2	2
610	110	1	RH	310812	64	0	91	100	2	2
611	110	1	RH	010912	93	77	96	100	2	2
612	110	1	RH	020912	84	60	96	100	2	2
613	110	1	RH	030912	71	49	96	100	2	2
614	110	1	RH	040912	72	50	94	100	2	2
615	110	1	RH	050912	78	49	95	100	2	2
616	110	1	RH	060912	80	49	94	100	2	2
617	110	1	RH	070912	63	38	93	100	2	2
618	110	1	RH	080912	69	31	96	100	2	2
619	110	1	RH	090912	68	30	96	100	2	2
620	110	1	RH	100912	67	30	96	100	2	2
621	110	1	RH	110912	73	39	96	100	2	2
622	110	1	RH	120912	77	46	95	100	2	2
623	110	1	RH	130912	93	90	96	100	2	2
624	110	1	RH	140912	2	0	87	100	2	2
625	110	1	RH	150912	0	0	0	100	2	2
626	110	1	RH	160912	0	0	0	100	2	2
627	110	1	RH	170912	74	0	96	100	2	2
628	110	1	RH	180912	79	48	96	100	2	2
629	110	1	RH	190912	83	57	96	100	2	2
630	110	1	RH	200912	74	31	95	100	2	2
631	110	1	RH	210912	74	34	96	100	2	2
632	110	1	RH	220912	2	0	94	100	2	2
633	110	1	RH	230912	0	0	0	100	2	2
634	110	1	RH	240912	76	0	96	100	2	2
635	110	1	RH	250912	70	43	95	100	2	2
636	110	1	RH	260912	70	43	95	100	2	2
637	110	1	RH	270912	2	0	83	100	2	2
638	110	1	RH	280912	91	0	96	100	2	2
639	110	1	RH	290912	91	76	96	100	2	2
640	110	1	RH	300912	84	57	96	100	2	2
641	110	1	RH	011012	81	57	96	100	2	2
642	110	1	RH	021012	88	71	95	100	2	2
643	110	1	RH	031012	14	0	96	100	2	2
644	110	1	RH	041012	34	0	91	100	2	2
645	110	1	RH	051012	75	47	95	100	2	2
646	110	1	RH	061012	78	46	96	100	2	2
647	110	1	RH	071012	78	47	95	100	2	2
648	110	1	RH	081012	70	40	95	100	2	2
649	110	1	RH	091012	81	49	96	100	2	2

650	110	1	RH	101012	83	62	96	100	2	2
651	110	1	RH	111012	91	80	95	100	2	2
652	110	1	RH	121012	93	84	96	100	2	2
653	110	1	RH	131012	91	75	96	100	2	2
654	110	1	RH	141012	90	81	95	100	2	2
655	110	1	RH	151012	89	0	96	100	2	2
656	110	1	RH	161012	90	64	96	100	2	2
657	110	1	RH	171012	82	53	96	100	2	2
658	110	1	RH	181012	73	47	94	100	2	2
659	110	1	RH	191012	78	36	96	100	2	2
660	110	1	RH	201012	76	32	96	100	2	2
661	110	1	RH	211012	86	55	96	100	2	2
662	110	1	RH	221012	95	83	96	100	2	2
663	110	1	RH	231012	96	96	96	100	2	2
664	110	1	RH	241012	94	88	96	100	2	2
665	110	1	RH	251012	84	60	95	100	2	2
666	110	1	RH	261012	96	95	96	100	2	2
667	110	1	RH	271012	2	0	96	100	2	2
668	110	1	RH	281012	93	0	96	100	2	2
669	110	1	RH	291012	90	83	96	100	2	2
670	110	1	RH	301012	81	49	96	100	2	2
671	110	1	RH	311012	78	50	96	100	2	2
672	110	1	RH	011112	94	87	96	100	2	2
673	110	1	RH	021112	92	80	96	100	2	2
674	110	1	RH	031112	90	74	96	100	2	2
675	110	1	RH	041112	74	47	94	100	2	2
676	110	1	RH	051112	79	0	95	100	2	2
677	110	1	RH	061112	89	75	95	100	2	2
678	110	1	RH	071112	77	44	95	100	2	2
679	110	1	RH	081112	77	40	96	100	2	2
680	110	1	RH	091112	71	32	93	100	2	2
681	110	1	RH	101112	84	54	96	100	2	2
682	110	1	RH	111112	83	56	96	100	2	2
683	110	1	RH	121112	95	92	96	100	2	2
684	110	1	RH	131112	89	79	95	100	2	2
685	110	1	RH	141112	82	68	92	100	2	2
686	110	1	RH	151112	77	66	83	100	2	2
687	110	1	RH	161112	74	62	81	100	2	2
688	110	1	RH	171112	78	62	92	100	2	2
689	110	1	RH	181112	93	88	95	100	2	2
690	110	1	RH	191112	88	0	95	100	2	2
691	110	1	RH	201112	86	73	94	100	2	2
692	110	1	RH	211112	91	85	95	100	2	2
693	110	1	RH	221112	88	76	95	100	2	2
694	110	1	RH	231112	90	83	96	100	2	2
695	110	1	RH	241112	87	70	95	100	2	2
696	110	1	RH	251112	92	72	96	100	2	2
697	110	1	RH	261112	72	0	96	100	2	2
698	110	1	RH	271112	53	38	71	100	2	2

699	110	1	RH	281112	75	55	93	100	2	2
700	110	1	RH	291112	92	74	96	100	2	2
701	110	1	RH	301112	93	86	96	100	2	2
702	110	1	RH	011212	81	60	95	100	2	2
703	110	1	RH	021212	93	87	96	100	2	2
704	110	1	RH	031212	79	39	96	100	2	2
705	110	1	RH	041212	89	67	96	100	2	2
706	110	1	RH	051212	89	59	96	100	2	2
707	110	1	RH	061212	94	89	97	100	2	2
708	110	1	RH	071212	84	57	96	100	2	2
709	110	1	RH	081212	84	49	96	100	2	2
710	110	1	RH	091212	59	35	92	100	2	2
711	110	1	RH	101212	81	0	94	100	2	2
712	110	1	RH	111212	95	93	95	100	2	2
713	110	1	RH	121212	93	89	96	100	2	2
714	110	1	RH	131212	90	84	93	100	2	2
715	110	1	RH	141212	87	68	95	100	2	2
716	110	1	RH	151212	81	54	96	100	2	2
717	110	1	RH	161212	96	95	96	100	2	2
718	110	1	RH	171212	94	0	96	100	2	2
719	110	1	RH	181212	92	82	96	100	2	2
720	110	1	RH	191212	88	71	95	100	2	2
721	110	1	RH	201212	86	66	96	100	2	2
722	110	1	RH	211212	94	88	96	100	2	2
723	110	1	RH	221212	91	84	96	100	2	2
724	110	1	RH	231212	90	85	95	100	2	2
725	110	1	RH	241212	76	54	96	100	2	2
726	110	1	RH	251212	58	52	63	100	2	2
727	110	1	RH	261212	75	59	95	100	2	2
728	110	1	RH	271212	92	78	96	100	2	2
729	110	1	RH	281212	80	52	95	100	2	2
730	110	1	RH	291212	80	53	95	100	2	2
731	110	1	RH	301212	87	66	94	100	2	2
732	110	1	RH	311212	83	0	94	100	2	2
733	110	2	PR	010112	0.9			100	2	2
734	110	2	PR	020112	2.0			100	2	2
735	110	2	PR	030112	6.4			100	2	2
736	110	2	PR	040112	1.6			100	2	2
737	110	2	PR	050112	0.3			100	2	2
738	110	2	PR	060112	0.1			100	2	2
739	110	2	PR	070112	0.0			100	2	2
740	110	2	PR	080112	0.0			100	2	2
741	110	2	PR	090112	0.0			100	2	2
742	110	2	PR	100112	0.0			100	2	2
743	110	2	PR	110112	0.0			100	2	2
744	110	2	PR	120112	0.3			100	2	2
745	110	2	PR	130112	0.1			100	2	2
746	110	2	PR	140112	0.1			100	2	2
747	110	2	PR	150112	0.0			100	2	2

748	110	2	PR	160112	0.0			100	2	2
749	110	2	PR	170112	0.0			100	2	2
750	110	2	PR	180112	0.0			100	2	2
751	110	2	PR	190112	15.0			100	2	2
752	110	2	PR	200112	4.3			100	2	2
753	110	2	PR	210112	0.3			100	2	2
754	110	2	PR	220112	0.0			100	2	2
755	110	2	PR	230112	0.3			100	2	2
756	110	2	PR	240112	15.6			100	2	2
757	110	2	PR	250112	2.3			100	2	2
758	110	2	PR	260112	0.0			100	2	2
759	110	2	PR	270112	0.0			100	2	2
760	110	2	PR	280112	0.0			100	2	2
761	110	2	PR	290112	0.0			100	2	2
762	110	2	PR	300112	0.0			100	2	2
763	110	2	PR	310112	0.0			100	2	2
764	110	2	PR	010212	0.0			100	2	2
765	110	2	PR	020212	0.0			100	2	2
766	110	2	PR	030212	0.0			100	2	2
767	110	2	PR	040212	0.0			100	2	2
768	110	2	PR	050212	0.0			100	2	2
769	110	2	PR	060212	0.0			100	2	2
770	110	2	PR	070212	0.0			100	2	2
771	110	2	PR	080212	0.0			100	2	2
772	110	2	PR	090212	0.0			100	2	2
773	110	2	PR	100212	0.0			100	2	2
774	110	2	PR	110212	0.0			100	2	2
775	110	2	PR	120212	0.0			100	2	2
776	110	2	PR	130212	0.0			100	2	2
777	110	2	PR	140212	0.1			100	2	2
778	110	2	PR	150212	11.7			100	2	2
779	110	2	PR	160212	0.4			100	2	2
780	110	2	PR	170212	0.0			100	2	2
781	110	2	PR	180212	0.0			100	2	2
782	110	2	PR	190212	1.6			100	2	2
783	110	2	PR	200212	17.0			100	2	2
784	110	2	PR	210212	0.0			100	2	2
785	110	2	PR	220212	0.0			100	2	2
786	110	2	PR	230212	0.0			100	2	2
787	110	2	PR	240212	0.0			100	2	2
788	110	2	PR	250212	0.0			100	2	2
789	110	2	PR	260212	2.3			100	2	2
790	110	2	PR	270212	0.0			100	2	2
791	110	2	PR	280212	0.0			100	2	2
792	110	2	PR	290212	0.0			100	2	2
793	110	2	PR	010312	0.0			100	2	2
794	110	2	PR	020312	0.1			100	2	2
795	110	2	PR	030312	0.0			100	2	2
796	110	2	PR	040312	0.0			100	2	2

797	110	2	PR	050312	0.0			100	2	2
798	110	2	PR	060312	0.0			100	2	2
799	110	2	PR	070312	0.0			100	2	2
800	110	2	PR	080312	0.0			100	2	2
801	110	2	PR	090312	0.0			100	2	2
802	110	2	PR	100312	0.0			100	2	2
803	110	2	PR	110312	0.0			100	2	2
804	110	2	PR	120312	3.3			100	2	2
805	110	2	PR	130312	0.0			100	2	2
806	110	2	PR	140312	0.1			100	2	2
807	110	2	PR	150312	0.0			100	2	2
808	110	2	PR	160312	0.0			100	2	2
809	110	2	PR	170312	0.0			100	2	2
810	110	2	PR	180312	0.0			100	2	2
811	110	2	PR	190312	0.0			100	2	2
812	110	2	PR	200312	0.0			100	2	2
813	110	2	PR	210312	0.0			100	2	2
814	110	2	PR	220312	0.0			100	2	2
815	110	2	PR	230312	0.0			100	2	2
816	110	2	PR	240312	0.0			100	2	2
817	110	2	PR	250312	0.0			100	2	2
818	110	2	PR	260312	0.0			100	2	2
819	110	2	PR	270312	0.0			100	2	2
820	110	2	PR	280312	0.0			100	2	2
821	110	2	PR	290312	0.0			100	2	2
822	110	2	PR	300312	0.0			100	2	2
823	110	2	PR	310312	1.1			100	2	2
824	110	2	PR	010412	3.0			100	2	2
825	110	2	PR	020412	0.0			100	2	2
826	110	2	PR	030412	0.0			100	2	2
827	110	2	PR	040412	0.1			100	2	2
828	110	2	PR	050412	26.6			100	2	2
829	110	2	PR	060412	5.7			100	2	2
830	110	2	PR	070412	6.9			100	2	2
831	110	2	PR	080412	4.7			100	2	2
832	110	2	PR	090412	0.0			100	2	2
833	110	2	PR	100412	0.0			100	2	2
834	110	2	PR	110412	15.7			100	2	2
835	110	2	PR	120412	0.4			100	2	2
836	110	2	PR	130412	0.1			100	2	2
837	110	2	PR	140412	1.6			100	2	2
838	110	2	PR	150412	0.7			100	2	2
839	110	2	PR	160412	2.3			100	2	2
840	110	2	PR	170412	0.0			100	2	2
841	110	2	PR	180412	0.0			100	2	2
842	110	2	PR	190412	0.1			100	2	2
843	110	2	PR	200412	0.3			100	2	2
844	110	2	PR	210412	2.0			100	2	2
845	110	2	PR	220412	0.3			100	2	2

846	110	2	PR	230412	0.6			100	2	2
847	110	2	PR	240412	3.4			100	2	2
848	110	2	PR	250412	0.9			100	2	2
849	110	2	PR	260412	1.1			100	2	2
850	110	2	PR	270412	0.0			100	2	2
851	110	2	PR	280412	0.0			100	2	2
852	110	2	PR	290412	0.0			100	2	2
853	110	2	PR	300412	0.0			100	2	2
854	110	2	PR	010512	0.0			100	2	2
855	110	2	PR	020512	0.0			100	2	2
856	110	2	PR	030512	0.0			100	2	2
857	110	2	PR	040512	0.0			100	2	2
858	110	2	PR	050512	0.1			100	2	2
859	110	2	PR	060512	0.7			100	2	2
860	110	2	PR	070512	31.6			100	2	2
861	110	2	PR	080512	0.1			100	2	2
862	110	2	PR	090512	0.0			100	2	2
863	110	2	PR	100512	0.0			100	2	2
864	110	2	PR	110512	0.0			100	2	2
865	110	2	PR	120512	6.9			100	2	2
866	110	2	PR	130512	19.9			100	2	2
867	110	2	PR	140512	1.7			100	2	2
868	110	2	PR	150512	0.0			100	2	2
869	110	2	PR	160512	0.0			100	2	2
870	110	2	PR	170512	0.0			100	2	2
871	110	2	PR	180512	0.0			100	2	2
872	110	2	PR	190512	0.0			100	2	2
873	110	2	PR	200512	0.0			100	2	2
874	110	2	PR	210512	10.1			100	2	2
875	110	2	PR	220512	12.4			100	2	2
876	110	2	PR	230512	12.3			100	2	2
877	110	2	PR	240512	0.9			100	2	2
878	110	2	PR	250512	0.0			100	2	2
879	110	2	PR	260512	0.3			100	2	2
880	110	2	PR	270512	0.0			100	2	2
881	110	2	PR	280512	1.1			100	2	2
882	110	2	PR	290512	0.0			100	2	2
883	110	2	PR	300512	8.0			100	2	2
884	110	2	PR	310512	0.3			100	2	2
885	110	2	PR	010612	29.4			100	2	2
886	110	2	PR	020612	6.4			100	2	2
887	110	2	PR	030612	0.1			100	2	2
888	110	2	PR	040612	3.4			100	2	2
889	110	2	PR	050612	4.7			100	2	2
890	110	2	PR	060612	0.0			100	2	2
891	110	2	PR	070612	0.0			100	2	2
892	110	2	PR	080612	0.0			100	2	2
893	110	2	PR	090612	0.0			100	2	2
894	110	2	PR	100612	0.0			100	2	2

895	110	2	PR	110612	8.3			100	2	2
896	110	2	PR	120612	23.0			100	2	2
897	110	2	PR	130612	2.1			100	2	2
898	110	2	PR	140612	0.3			100	2	2
899	110	2	PR	150612	0.1			100	2	2
900	110	2	PR	160612	0.0			100	2	2
901	110	2	PR	170612	0.0			100	2	2
902	110	2	PR	180612	0.0			100	2	2
903	110	2	PR	190612	0.0			100	2	2
904	110	2	PR	200612	0.0			100	2	2
905	110	2	PR	210612	0.0			100	2	2
906	110	2	PR	220612	0.0			100	2	2
907	110	2	PR	230612	0.0			100	2	2
908	110	2	PR	240612	0.0			100	2	2
909	110	2	PR	250612	4.4			100	2	2
910	110	2	PR	260612	0.3			100	2	2
911	110	2	PR	270612	0.1			100	2	2
912	110	2	PR	280612	0.0			100	2	2
913	110	2	PR	290612	0.0			100	2	2
914	110	2	PR	300612	0.0			100	2	2
915	110	2	PR	010712	0.0			100	2	2
916	110	2	PR	020712	0.0			100	2	2
917	110	2	PR	030712	0.0			100	2	2
918	110	2	PR	040712	0.0			100	2	2
919	110	2	PR	050712	0.6			100	2	2
920	110	2	PR	060712	0.3			100	2	2
921	110	2	PR	070712	0.1			100	2	2
922	110	2	PR	080712	0.0			100	2	2
923	110	2	PR	090712	0.0			100	2	2
924	110	2	PR	100712	0.0			100	2	2
925	110	2	PR	110712	4.7			100	2	2
926	110	2	PR	120712	9.1			100	2	2
927	110	2	PR	130712	0.0			100	2	2
928	110	2	PR	140712	0.0			100	2	2
929	110	2	PR	150712	0.0			100	2	2
930	110	2	PR	160712	0.3			100	2	2
931	110	2	PR	170712	0.0			100	2	2
932	110	2	PR	180712	0.0			100	2	2
933	110	2	PR	190712	0.0			100	2	2
934	110	2	PR	200712	0.0			100	2	2
935	110	2	PR	210712	2.4			100	2	2
936	110	2	PR	220712	0.0			100	2	2
937	110	2	PR	230712	5.4			100	2	2
938	110	2	PR	240712	0.6			100	2	2
939	110	2	PR	250712	25.9			100	2	2
940	110	2	PR	260712	0.7			100	2	2
941	110	2	PR	270712	0.1			100	2	2
942	110	2	PR	280712	0.1			100	2	2
943	110	2	PR	290712	0.0			100	2	2

944	110	2	PR	300712	0.0			100	2	2
945	110	2	PR	310712	0.0			100	2	2
946	110	2	PR	010812	0.0			100	2	2
947	110	2	PR	020812	0.0			100	2	2
948	110	2	PR	030812	0.0			100	2	2
949	110	2	PR	040812	0.0			100	2	2
950	110	2	PR	050812	0.0			100	2	2
951	110	2	PR	060812	0.0			100	2	2
952	110	2	PR	070812	0.0			100	2	2
953	110	2	PR	080812	0.0			100	2	2
954	110	2	PR	090812	0.0			100	2	2
955	110	2	PR	100812	0.0			100	2	2
956	110	2	PR	110812	0.0			100	2	2
957	110	2	PR	120812	0.0			100	2	2
958	110	2	PR	130812	0.0			100	2	2
959	110	2	PR	140812	0.0			100	2	2
960	110	2	PR	150812	0.0			100	2	2
961	110	2	PR	160812	0.1			100	2	2
962	110	2	PR	170812	0.1			100	2	2
963	110	2	PR	180812	0.0			100	2	2
964	110	2	PR	190812	0.0			100	2	2
965	110	2	PR	200812	0.0			100	2	2
966	110	2	PR	210812	0.0			100	2	2
967	110	2	PR	220812	0.0			100	2	2
968	110	2	PR	230812	0.0			100	2	2
969	110	2	PR	240812	0.0			100	2	2
970	110	2	PR	250812	0.0			100	2	2
971	110	2	PR	260812	9.7			100	2	2
972	110	2	PR	270812	0.6			100	2	2
973	110	2	PR	280812	0.1			100	2	2
974	110	2	PR	290812	0.0			100	2	2
975	110	2	PR	300812	0.0			100	2	2
976	110	2	PR	310812	1.0			100	2	2
977	110	2	PR	010912	50.0			100	2	2
978	110	2	PR	020912	1.4			100	2	2
979	110	2	PR	030912	0.1			100	2	2
980	110	2	PR	040912	1.3			100	2	2
981	110	2	PR	050912	1.1			100	2	2
982	110	2	PR	060912	17.7			100	2	2
983	110	2	PR	070912	0.0			100	2	2
984	110	2	PR	080912	0.1			100	2	2
985	110	2	PR	090912	0.1			100	2	2
986	110	2	PR	100912	0.0			100	2	2
987	110	2	PR	110912	0.1			100	2	2
988	110	2	PR	120912	16.6			100	2	2
989	110	2	PR	130912	50.0			100	2	2
990	110	2	PR	140912	0.0			100	2	2
991	110	2	PR	150912	0.0			100	2	2
992	110	2	PR	160912	0.0			100	2	2

993	110	2	PR	170912	0.1			100	2	2
994	110	2	PR	180912	0.1			100	2	2
995	110	2	PR	190912	24.7			100	2	2
996	110	2	PR	200912	9.9			100	2	2
997	110	2	PR	210912	0.1			100	2	2
998	110	2	PR	220912	0.0			100	2	2
999	110	2	PR	230912	0.0			100	2	2
1000	110	2	PR	240912	6.3			100	2	2
1001	110	2	PR	250912	0.0			100	2	2
1002	110	2	PR	260912	0.0			100	2	2
1003	110	2	PR	270912	0.0			100	2	2
1004	110	2	PR	280912	9.9			100	2	2
1005	110	2	PR	290912	0.4			100	2	2
1006	110	2	PR	300912	0.3			100	2	2
1007	110	2	PR	011012	0.6			100	2	2
1008	110	2	PR	021012	4.3			100	2	2
1009	110	2	PR	031012	0.0			100	2	2
1010	110	2	PR	041012	0.0			100	2	2
1011	110	2	PR	051012	0.0			100	2	2
1012	110	2	PR	061012	0.3			100	2	2
1013	110	2	PR	071012	2.1			100	2	2
1014	110	2	PR	081012	0.0			100	2	2
1015	110	2	PR	091012	0.1			100	2	2
1016	110	2	PR	101012	16.1			100	2	2
1017	110	2	PR	111012	0.1			100	2	2
1018	110	2	PR	121012	1.9			100	2	2
1019	110	2	PR	131012	11.6			100	2	2
1020	110	2	PR	141012	0.1			100	2	2
1021	110	2	PR	151012	0.3			100	2	2
1022	110	2	PR	161012	48.6			100	2	2
1023	110	2	PR	171012	0.3			100	2	2
1024	110	2	PR	181012	0.0			100	2	2
1025	110	2	PR	191012	0.3			100	2	2
1026	110	2	PR	201012	0.3			100	2	2
1027	110	2	PR	211012	0.3			100	2	2
1028	110	2	PR	221012	0.6			100	2	2
1029	110	2	PR	231012	0.3			100	2	2
1030	110	2	PR	241012	0.7			100	2	2
1031	110	2	PR	251012	0.0			100	2	2
1032	110	2	PR	261012	0.7			100	2	2
1033	110	2	PR	271012	0.0			100	2	2
1034	110	2	PR	281012	28.4			100	2	2
1035	110	2	PR	291012	6.0			100	2	2
1036	110	2	PR	301012	0.3			100	2	2
1037	110	2	PR	311012	1.6			100	2	2
1038	110	2	PR	011112	17.0			100	2	2
1039	110	2	PR	021112	2.4			100	2	2
1040	110	2	PR	031112	0.3			100	2	2
1041	110	2	PR	041112	0.0			100	2	2

1042	110	2	PR	051112	16.7			100	2	2
1043	110	2	PR	061112	2.9			100	2	2
1044	110	2	PR	071112	0.1			100	2	2
1045	110	2	PR	081112	0.1			100	2	2
1046	110	2	PR	091112	0.0			100	2	2
1047	110	2	PR	101112	0.1			100	2	2
1048	110	2	PR	111112	0.6			100	2	2
1049	110	2	PR	121112	24.0			100	2	2
1050	110	2	PR	131112	2.0			100	2	2
1051	110	2	PR	141112	0.0			100	2	2
1052	110	2	PR	151112	0.0			100	2	2
1053	110	2	PR	161112	0.0			100	2	2
1054	110	2	PR	171112	0.6			100	2	2
1055	110	2	PR	181112	1.6			100	2	2
1056	110	2	PR	191112	0.1			100	2	2
1057	110	2	PR	201112	1.1			100	2	2
1058	110	2	PR	211112	0.0			100	2	2
1059	110	2	PR	221112	0.1			100	2	2
1060	110	2	PR	231112	0.1			100	2	2
1061	110	2	PR	241112	0.0			100	2	2
1062	110	2	PR	251112	0.3			100	2	2
1063	110	2	PR	261112	0.0			100	2	2
1064	110	2	PR	271112	0.0			100	2	2
1065	110	2	PR	281112	9.3			100	2	2
1066	110	2	PR	291112	50.0			100	2	2
1067	110	2	PR	301112	27.3			100	2	2
1068	110	2	PR	011212	0.1			100	2	2
1069	110	2	PR	021212	6.1			100	2	2
1070	110	2	PR	031212	1.7			100	2	2
1071	110	2	PR	041212	9.0			100	2	2
1072	110	2	PR	051212	8.9			100	2	2
1073	110	2	PR	061212	0.1			100	2	2
1074	110	2	PR	071212	0.7			100	2	2
1075	110	2	PR	081212	0.1			100	2	2
1076	110	2	PR	091212	0.7			100	2	2
1077	110	2	PR	101212	0.0			100	2	2
1078	110	2	PR	111212	0.0			100	2	2
1079	110	2	PR	121212	0.1			100	2	2
1080	110	2	PR	131212	0.0			100	2	2
1081	110	2	PR	141212	2.9			100	2	2
1082	110	2	PR	151212	5.7			100	2	2
1083	110	2	PR	161212	0.3			100	2	2
1084	110	2	PR	171212	0.6			100	2	2
1085	110	2	PR	181212	4.7			100	2	2
1086	110	2	PR	191212	4.9			100	2	2
1087	110	2	PR	201212	0.0			100	2	2
1088	110	2	PR	211212	0.4			100	2	2
1089	110	2	PR	221212	1.1			100	2	2
1090	110	2	PR	231212	0.0			100	2	2

1091	110	2	PR	241212	0.0			100	2	2
1092	110	2	PR	251212	0.0			100	2	2
1093	110	2	PR	261212	21.6			100	2	2
1094	110	2	PR	271212	0.1			100	2	2
1095	110	2	PR	281212	1.6			100	2	2
1096	110	2	PR	291212	0.1			100	2	2
1097	110	2	PR	301212	0.1			100	2	2
1098	110	2	PR	311212	0.1			100	2	2
1099	110	3	WS	010112	0.5		2.6	100	2	2
1100	110	3	WS	020112	1.2		8.6	100	2	2
1101	110	3	WS	030112	1.3		13.2	100	2	2
1102	110	3	WS	040112	1.5		8.4	100	2	2
1103	110	3	WS	050112	1.3		9.6	100	2	2
1104	110	3	WS	060112	1.4		9.6	100	2	2
1105	110	3	WS	070112	1.0		6.4	100	2	2
1106	110	3	WS	080112	0.7		6.5	100	2	2
1107	110	3	WS	090112	0.8		7.7	100	2	2
1108	110	3	WS	100112	0.9		10.2	100	2	2
1109	110	3	WS	110112	0.7		4.6	100	2	2
1110	110	3	WS	120112	0.7		5.8	100	2	2
1111	110	3	WS	130112	0.9		6.4	100	2	2
1112	110	3	WS	140112	1.0		9.1	100	2	2
1113	110	3	WS	150112	1.0		5.9	100	2	2
1114	110	3	WS	160112	0.9		19.0	100	2	2
1115	110	3	WS	170112	0.7		3.3	100	2	2
1116	110	3	WS	180112	0.8		4.8	100	2	2
1117	110	3	WS	190112	3.0		17.9	100	2	2
1118	110	3	WS	200112	2.0		15.6	100	2	2
1119	110	3	WS	210112	1.1		5.2	100	2	2
1120	110	3	WS	220112	1.4		7.3	100	2	2
1121	110	3	WS	230112	0.9		5.6	100	2	2
1122	110	3	WS	240112	1.3		11.7	100	2	2
1123	110	3	WS	250112	1.6		15.0	100	2	2
1124	110	3	WS	260112	1.0		7.7	100	2	2
1125	110	3	WS	270112	0.7		3.8	100	2	2
1126	110	3	WS	280112	0.9		5.2	100	2	2
1127	110	3	WS	290112	2.4		9.2	100	2	2
1128	110	3	WS	300112	1.8		8.7	100	2	2
1129	110	3	WS	310112	1.7		9.3	100	2	2
1130	110	3	WS	010212	2.6		11.7	100	2	2
1131	110	3	WS	020212	2.5		12.2	100	2	2
1132	110	3	WS	030212	2.2		9.8	100	2	2
1133	110	3	WS	040212	1.4		8.2	100	2	2
1134	110	3	WS	050212	1.0		6.3	100	2	2
1135	110	3	WS	060212	1.4		8.5	100	2	2
1136	110	3	WS	070212	1.7		9.1	100	2	2
1137	110	3	WS	080212	1.7		8.5	100	2	2
1138	110	3	WS	090212	0.1		2.2	100	2	2
1139	110	3	WS	100212	0.0		0.0	100	2	2

1140	110	3	WS	110212	0.0		0.0	100	2	2
1141	110	3	WS	120212	0.0		0.0	100	2	2
1142	110	3	WS	130212	0.5		4.5	100	2	2
1143	110	3	WS	140212	0.2		2.2	100	2	2
1144	110	3	WS	150212	0.0		0.0	100	2	2
1145	110	3	WS	160212	0.0		0.0	100	2	2
1146	110	3	WS	170212	0.0		0.0	100	2	2
1147	110	3	WS	180212	0.0		0.0	100	2	2
1148	110	3	WS	190212	0.0		0.0	100	2	2
1149	110	3	WS	200212	0.6		4.3	100	2	2
1150	110	3	WS	210212	1.0		5.1	100	2	2
1151	110	3	WS	220212	0.9		5.3	100	2	2
1152	110	3	WS	230212	0.8		4.7	100	2	2
1153	110	3	WS	240212	0.8		4.0	100	2	2
1154	110	3	WS	250212	0.9		6.9	100	2	2
1155	110	3	WS	260212	1.2		8.2	100	2	2
1156	110	3	WS	270212	0.9		5.3	100	2	2
1157	110	3	WS	280212	0.9		3.6	100	2	2
1158	110	3	WS	290212	1.0		5.2	100	2	2
1159	110	3	WS	010312	0.9		3.7	100	2	2
1160	110	3	WS	020312	0.9		6.7	100	2	2
1161	110	3	WS	030312	1.4		8.3	100	2	2
1162	110	3	WS	040312	1.0		5.3	100	2	2
1163	110	3	WS	050312	1.8		7.9	100	2	2
1164	110	3	WS	060312	1.9		12.1	100	2	2
1165	110	3	WS	070312	1.5		6.7	100	2	2
1166	110	3	WS	080312	1.3		7.2	100	2	2
1167	110	3	WS	090312	1.7		11.5	100	2	2
1168	110	3	WS	100312	1.5		11.7	100	2	2
1169	110	3	WS	110312	1.1		5.9	100	2	2
1170	110	3	WS	120312	1.2		7.2	100	2	2
1171	110	3	WS	130312	0.9		4.3	100	2	2
1172	110	3	WS	140312	0.9		6.1	100	2	2
1173	110	3	WS	150312	0.9		7.2	100	2	2
1174	110	3	WS	160312	0.9		4.8	100	2	2
1175	110	3	WS	170312	2.3		12.9	100	2	2
1176	110	3	WS	180312	2.5		14.8	100	2	2
1177	110	3	WS	190312	1.7		10.1	100	2	2
1178	110	3	WS	200312	1.0		5.8	100	2	2
1179	110	3	WS	210312	1.1		6.1	100	2	2
1180	110	3	WS	220312	1.0		6.4	100	2	2
1181	110	3	WS	230312	0.8		6.9	100	2	2
1182	110	3	WS	240312	1.2		9.2	100	2	2
1183	110	3	WS	250312	1.4		8.7	100	2	2
1184	110	3	WS	260312	1.7		13.2	100	2	2
1185	110	3	WS	270312	1.0		6.6	100	2	2
1186	110	3	WS	280312	1.0		6.4	100	2	2
1187	110	3	WS	290312	1.2		9.0	100	2	2
1188	110	3	WS	300312	1.5		8.5	100	2	2

1189	110	3	WS	310312	2.2		14.8	100	2	2
1190	110	3	WS	010412	1.6		17.5	100	2	2
1191	110	3	WS	020412	1.5		10.7	100	2	2
1192	110	3	WS	030412	2.1		10.5	100	2	2
1193	110	3	WS	040412	1.7		10.9	100	2	2
1194	110	3	WS	050412	1.2		10.6	100	2	2
1195	110	3	WS	060412	0.8		8.1	100	2	2
1196	110	3	WS	070412	2.0		14.6	100	2	2
1197	110	3	WS	080412	1.5		9.7	100	2	2
1198	110	3	WS	090412	1.1		8.7	100	2	2
1199	110	3	WS	100412	1.3		8.1	100	2	2
1200	110	3	WS	110412	1.6		8.2	100	2	2
1201	110	3	WS	120412	1.7		9.9	100	2	2
1202	110	3	WS	130412	1.2		7.1	100	2	2
1203	110	3	WS	140412	2.0		9.8	100	2	2
1204	110	3	WS	150412	1.0		6.7	100	2	2
1205	110	3	WS	160412	1.6		10.2	100	2	2
1206	110	3	WS	170412	1.7		14.1	100	2	2
1207	110	3	WS	180412	0.8		6.0	100	2	2
1208	110	3	WS	190412	1.9		12.4	100	2	2
1209	110	3	WS	200412	1.5		10.8	100	2	2
1210	110	3	WS	210412	1.4		10.7	100	2	2
1211	110	3	WS	220412	1.9		14.9	100	2	2
1212	110	3	WS	230412	0.8		5.4	100	2	2
1213	110	3	WS	240412	1.6		15.6	100	2	2
1214	110	3	WS	250412	1.8		14.0	100	2	2
1215	110	3	WS	260412	3.1		14.5	100	2	2
1216	110	3	WS	270412	1.5		9.8	100	2	2
1217	110	3	WS	280412	1.1		7.0	100	2	2
1218	110	3	WS	290412	1.4		10.2	100	2	2
1219	110	3	WS	300412	1.0		8.7	100	2	2
1220	110	3	WS	010512	1.0		6.1	100	2	2
1221	110	3	WS	020512	1.1		7.3	100	2	2
1222	110	3	WS	030512	1.0		7.2	100	2	2
1223	110	3	WS	040512	1.1		9.6	100	2	2
1224	110	3	WS	050512	2.0		12.7	100	2	2
1225	110	3	WS	060512	1.9		13.5	100	2	2
1226	110	3	WS	070512	1.2		11.6	100	2	2
1227	110	3	WS	080512	0.7		5.7	100	2	2
1228	110	3	WS	090512	1.0		6.6	100	2	2
1229	110	3	WS	100512	0.9		6.7	100	2	2
1230	110	3	WS	110512	0.7		6.7	100	2	2
1231	110	3	WS	120512	1.4		11.0	100	2	2
1232	110	3	WS	130512	1.1		7.9	100	2	2
1233	110	3	WS	140512	2.1		12.1	100	2	2
1234	110	3	WS	150512	0.8		6.6	100	2	2
1235	110	3	WS	160512	0.0		0.0	100	2	2
1236	110	3	WS	170512	0.0		0.0	100	2	2
1237	110	3	WS	180512	0.0		0.0	100	2	2

1238	110	3	WS	190512	0.0		0.0	100	2	2
1239	110	3	WS	200512	0.0		0.0	100	2	2
1240	110	3	WS	210512	0.0		0.0	100	2	2
1241	110	3	WS	220512	0.0		0.0	100	2	2
1242	110	3	WS	230512	0.0		0.0	100	2	2
1243	110	3	WS	240512	0.0		0.0	100	2	2
1244	110	3	WS	250512	0.0		0.0	100	2	2
1245	110	3	WS	260512	0.0		0.0	100	2	2
1246	110	3	WS	270512	0.0		0.0	100	2	2
1247	110	3	WS	280512	0.0		0.0	100	2	2
1248	110	3	WS	290512	0.0		0.0	100	2	2
1249	110	3	WS	300512	0.6		11.9	100	2	2
1250	110	3	WS	310512	0.7		4.3	100	2	2
1251	110	3	WS	010612	1.2		8.5	100	2	2
1252	110	3	WS	020612	0.7		7.3	100	2	2
1253	110	3	WS	030612	1.8		11.3	100	2	2
1254	110	3	WS	040612	1.4		11.8	100	2	2
1255	110	3	WS	050612	1.2		11.2	100	2	2
1256	110	3	WS	060612	0.9		4.9	100	2	2
1257	110	3	WS	070612	1.4		9.2	100	2	2
1258	110	3	WS	080612	1.7		7.4	100	2	2
1259	110	3	WS	090612	0.6		6.2	100	2	2
1260	110	3	WS	100612	0.0		0.0	100	2	2
1261	110	3	WS	110612	0.0		0.0	100	2	2
1262	110	3	WS	120612	0.0		0.0	100	2	2
1263	110	3	WS	130612	0.0		0.0	100	2	2
1264	110	3	WS	140612	0.0		0.0	100	2	2
1265	110	3	WS	150612	0.3		7.1	100	2	2
1266	110	3	WS	160612	0.9		6.6	100	2	2
1267	110	3	WS	170612	0.9		5.6	100	2	2
1268	110	3	WS	180612	0.7		4.2	100	2	2
1269	110	3	WS	190612	0.7		5.2	100	2	2
1270	110	3	WS	200612	0.6		4.5	100	2	2
1271	110	3	WS	210612	0.9		4.5	100	2	2
1272	110	3	WS	220612	1.3		8.9	100	2	2
1273	110	3	WS	230612	1.4		9.0	100	2	2
1274	110	3	WS	240612	0.9		5.5	100	2	2
1275	110	3	WS	250612	1.0		19.2	100	2	2
1276	110	3	WS	260612	0.9		6.3	100	2	2
1277	110	3	WS	270612	0.6		5.6	100	2	2
1278	110	3	WS	280612	0.7		4.5	100	2	2
1279	110	3	WS	290612	0.8		4.7	100	2	2
1280	110	3	WS	300612	1.0		7.3	100	2	2
1281	110	3	WS	010712	0.8		3.6	100	2	2
1282	110	3	WS	020712	1.2		6.8	100	2	2
1283	110	3	WS	030712	0.9		6.0	100	2	2
1284	110	3	WS	040712	0.8		7.0	100	2	2
1285	110	3	WS	050712	0.9		8.9	100	2	2
1286	110	3	WS	060712	0.8		9.7	100	2	2

1287	110	3	WS	070712	0.9		6.7	100	2	2
1288	110	3	WS	080712	1.1		8.6	100	2	2
1289	110	3	WS	090712	1.3		8.1	100	2	2
1290	110	3	WS	100712	0.9		5.9	100	2	2
1291	110	3	WS	110712	1.4		11.4	100	2	2
1292	110	3	WS	120712	1.4		12.3	100	2	2
1293	110	3	WS	130712	1.5		8.6	100	2	2
1294	110	3	WS	140712	1.4		11.8	100	2	2
1295	110	3	WS	150712	0.5		9.5	100	2	2
1296	110	3	WS	160712	0.0		0.0	100	2	2
1297	110	3	WS	170712	0.6		5.0	100	2	2
1298	110	3	WS	180712	0.9		5.8	100	2	2
1299	110	3	WS	190712	1.2		12.6	100	2	2
1300	110	3	WS	200712	1.3		7.6	100	2	2
1301	110	3	WS	210712	2.0		13.7	100	2	2
1302	110	3	WS	220712	1.4		8.3	100	2	2
1303	110	3	WS	230712	2.2		10.8	100	2	2
1304	110	3	WS	240712	2.1		10.5	100	2	2
1305	110	3	WS	250712	0.8		6.8	100	2	2
1306	110	3	WS	260712	0.6		5.5	100	2	2
1307	110	3	WS	270712	0.7		6.2	100	2	2
1308	110	3	WS	280712	0.8		4.5	100	2	2
1309	110	3	WS	290712	1.1		17.2	100	2	2
1310	110	3	WS	300712	1.3		6.9	100	2	2
1311	110	3	WS	310712	1.3		7.4	100	2	2
1312	110	3	WS	010812	0.8		5.5	100	2	2
1313	110	3	WS	020812	0.6		5.2	100	2	2
1314	110	3	WS	030812	1.0		8.3	100	2	2
1315	110	3	WS	040812	0.2		2.9	100	2	2
1316	110	3	WS	050812	0.0		0.0	100	2	2
1317	110	3	WS	060812	0.0		0.0	100	2	2
1318	110	3	WS	070812	0.0		0.0	100	2	2
1319	110	3	WS	080812	0.0		0.0	100	2	2
1320	110	3	WS	090812	0.0		0.0	100	2	2
1321	110	3	WS	100812	0.0		0.0	100	2	2
1322	110	3	WS	110812	0.0		0.0	100	2	2
1323	110	3	WS	120812	0.0		0.0	100	2	2
1324	110	3	WS	130812	0.0		0.0	100	2	2
1325	110	3	WS	140812	0.0		0.0	100	2	2
1326	110	3	WS	150812	0.0		0.0	100	2	2
1327	110	3	WS	160812	0.0		0.0	100	2	2
1328	110	3	WS	170812	0.0		0.0	100	2	2
1329	110	3	WS	180812	0.0		0.0	100	2	2
1330	110	3	WS	190812	0.0		0.0	100	2	2
1331	110	3	WS	200812	0.0		0.0	100	2	2
1332	110	3	WS	210812	0.0		0.0	100	2	2
1333	110	3	WS	220812	0.4		5.3	100	2	2
1334	110	3	WS	230812	0.7		5.6	100	2	2
1335	110	3	WS	240812	1.4		12.2	100	2	2

1336	110	3	WS	250812	1.2		10.9	100	2	2
1337	110	3	WS	260812	1.7		13.7	100	2	2
1338	110	3	WS	270812	1.1		10.0	100	2	2
1339	110	3	WS	280812	0.7		6.2	100	2	2
1340	110	3	WS	290812	0.7		5.7	100	2	2
1341	110	3	WS	300812	0.7		5.9	100	2	2
1342	110	3	WS	310812	1.1		9.4	100	2	2
1343	110	3	WS	010912	0.7		5.9	100	2	2
1344	110	3	WS	020912	0.7		4.3	100	2	2
1345	110	3	WS	030912	1.3		7.5	100	2	2
1346	110	3	WS	040912	0.9		6.5	100	2	2
1347	110	3	WS	050912	0.9		5.7	100	2	2
1348	110	3	WS	060912	1.0		8.5	100	2	2
1349	110	3	WS	070912	0.8		5.1	100	2	2
1350	110	3	WS	080912	0.5		3.8	100	2	2
1351	110	3	WS	090912	0.6		3.7	100	2	2
1352	110	3	WS	100912	0.7		3.9	100	2	2
1353	110	3	WS	110912	0.6		5.5	100	2	2
1354	110	3	WS	120912	0.8		8.7	100	2	2
1355	110	3	WS	130912	1.3		13.1	100	2	2
1356	110	3	WS	140912	1.1		10.0	100	2	2
1357	110	3	WS	150912	1.2		5.6	100	2	2
1358	110	3	WS	160912	0.6		5.6	100	2	2
1359	110	3	WS	170912	0.6		5.4	100	2	2
1360	110	3	WS	180912	0.5		4.0	100	2	2
1361	110	3	WS	190912	1.0		14.9	100	2	2
1362	110	3	WS	200912	1.1		7.5	100	2	2
1363	110	3	WS	210912	0.6		4.4	100	2	2
1364	110	3	WS	220912	1.6		13.1	100	2	2
1365	110	3	WS	230912	0.8		4.9	100	2	2
1366	110	3	WS	240912	1.1		11.0	100	2	2
1367	110	3	WS	250912	0.9		6.3	100	2	2
1368	110	3	WS	260912	1.5		14.1	100	2	2
1369	110	3	WS	270912	1.5		13.9	100	2	2
1370	110	3	WS	280912	0.9		8.3	100	2	2
1371	110	3	WS	290912	0.6		4.7	100	2	2
1372	110	3	WS	300912	0.8		5.7	100	2	2
1373	110	3	WS	011012	0.5		5.0	100	2	2
1374	110	3	WS	021012	1.2		9.9	100	2	2
1375	110	3	WS	031012	0.1		2.2	100	2	2
1376	110	3	WS	041012	0.6		4.7	100	2	2
1377	110	3	WS	051012	0.9		5.0	100	2	2
1378	110	3	WS	061012	1.0		6.8	100	2	2
1379	110	3	WS	071012	1.4		10.2	100	2	2
1380	110	3	WS	081012	0.8		6.4	100	2	2
1381	110	3	WS	091012	0.5		3.7	100	2	2
1382	110	3	WS	101012	0.8		5.6	100	2	2
1383	110	3	WS	111012	0.5		2.9	100	2	2
1384	110	3	WS	121012	0.6		4.0	100	2	2

1385	110	3	WS	131012	0.7		4.0	100	2	2
1386	110	3	WS	141012	0.4		2.9	100	2	2
1387	110	3	WS	151012	0.7		4.4	100	2	2
1388	110	3	WS	161012	1.4		12.0	100	2	2
1389	110	3	WS	171012	0.9		8.5	100	2	2
1390	110	3	WS	181012	1.2		6.3	100	2	2
1391	110	3	WS	191012	0.6		3.6	100	2	2
1392	110	3	WS	201012	0.7		4.2	100	2	2
1393	110	3	WS	211012	0.7		4.8	100	2	2
1394	110	3	WS	221012	0.4		3.3	100	2	2
1395	110	3	WS	231012	0.5		2.8	100	2	2
1396	110	3	WS	241012	0.5		3.3	100	2	2
1397	110	3	WS	251012	0.5		2.7	100	2	2
1398	110	3	WS	261012	0.5		5.4	100	2	2
1399	110	3	WS	271012	1.0		13.6	100	2	2
1400	110	3	WS	281012	0.7		10.5	100	2	2
1401	110	3	WS	291012	0.9		6.6	100	2	2
1402	110	3	WS	301012	1.0		5.3	100	2	2
1403	110	3	WS	311012	0.9		5.6	100	2	2
1404	110	3	WS	011112	0.9		8.0	100	2	2
1405	110	3	WS	021112	0.9		11.3	100	2	2
1406	110	3	WS	031112	0.6		4.2	100	2	2
1407	110	3	WS	041112	1.0		9.9	100	2	2
1408	110	3	WS	051112	1.9		16.0	100	2	2
1409	110	3	WS	061112	0.9		6.3	100	2	2
1410	110	3	WS	071112	0.8		4.8	100	2	2
1411	110	3	WS	081112	0.6		3.4	100	2	2
1412	110	3	WS	091112	1.0		7.0	100	2	2
1413	110	3	WS	101112	0.5		3.1	100	2	2
1414	110	3	WS	111112	0.6		4.7	100	2	2
1415	110	3	WS	121112	1.0		5.9	100	2	2
1416	110	3	WS	131112	0.9		5.5	100	2	2
1417	110	3	WS	141112	1.3		7.4	100	2	2
1418	110	3	WS	151112	1.1		5.4	100	2	2
1419	110	3	WS	161112	0.9		22.1	100	2	2
1420	110	3	WS	171112	0.5		3.4	100	2	2
1421	110	3	WS	181112	0.4		2.2	100	2	2
1422	110	3	WS	191112	1.0		18.8	100	2	2
1423	110	3	WS	201112	1.4		6.6	100	2	2
1424	110	3	WS	211112	0.5		24.6	100	2	2
1425	110	3	WS	221112	0.5		2.6	100	2	2
1426	110	3	WS	231112	0.6		2.4	100	2	2
1427	110	3	WS	241112	0.8		3.6	100	2	2
1428	110	3	WS	251112	0.4		1.9	100	2	2
1429	110	3	WS	261112	1.4		11.4	100	2	2
1430	110	3	WS	271112	1.2		9.5	100	2	2
1431	110	3	WS	281112	1.7		7.6	100	2	2
1432	110	3	WS	291112	0.9		10.1	100	2	2
1433	110	3	WS	301112	1.0		9.7	100	2	2

1434	110	3	WS	011212	0.8		4.3	100	2	2
1435	110	3	WS	021212	0.9		9.9	100	2	2
1436	110	3	WS	031212	0.9		5.2	100	2	2
1437	110	3	WS	041212	0.9		8.5	100	2	2
1438	110	3	WS	051212	0.7		4.6	100	2	2
1439	110	3	WS	061212	0.6		3.9	100	2	2
1440	110	3	WS	071212	1.0		6.0	100	2	2
1441	110	3	WS	081212	3.3		17.8	100	2	2
1442	110	3	WS	091212	1.1		6.4	100	2	2
1443	110	3	WS	101212	0.6		4.1	100	2	2
1444	110	3	WS	111212	0.6		3.2	100	2	2
1445	110	3	WS	121212	0.5		2.1	100	2	2
1446	110	3	WS	131212	0.0		4.6	100	2	2
1447	110	3	WS	141212	0.0		0.0	100	2	2
1448	110	3	WS	151212	0.0		0.0	100	2	2
1449	110	3	WS	161212	0.0		0.0	100	2	2
1450	110	3	WS	171212	0.4		2.9	100	2	2
1451	110	3	WS	181212	1.2		8.6	100	2	2
1452	110	3	WS	191212	0.7		4.6	100	2	2
1453	110	3	WS	201212	0.7		3.8	100	2	2
1454	110	3	WS	211212	0.7		5.5	100	2	2
1455	110	3	WS	221212	0.4		3.4	100	2	2
1456	110	3	WS	231212	0.6		3.0	100	2	2
1457	110	3	WS	241212	1.5		12.8	100	2	2
1458	110	3	WS	251212	2.9		13.2	100	2	2
1459	110	3	WS	261212	1.4		21.9	100	2	2
1460	110	3	WS	271212	0.8		3.6	100	2	2
1461	110	3	WS	281212	1.1		10.2	100	2	2
1462	110	3	WS	291212	0.8		4.7	100	2	2
1463	110	3	WS	301212	0.6		2.8	100	2	2
1464	110	3	WS	311212	0.5		3.0	100	2	2
1465	110	3	WD	010112	240			100	2	2
1466	110	3	WD	020112	240			67	2	2
1467	110	3	WD	030112	60			98	2	2
1468	110	3	WD	040112	210			100	2	2
1469	110	3	WD	050112	210			100	2	2
1470	110	3	WD	060112	90			100	2	2
1471	110	3	WD	070112	210			100	2	2
1472	110	3	WD	080112	180			100	2	2
1473	110	3	WD	090112	180			100	2	2
1474	110	3	WD	100112	180			98	2	2
1475	110	3	WD	110112	240			100	2	2
1476	110	3	WD	120112	180			100	2	2
1477	110	3	WD	130112	30			100	2	2
1478	110	3	WD	140112	150			98	2	2
1479	110	3	WD	150112	0			100	2	2
1480	110	3	WD	160112	180			98	2	2
1481	110	3	WD	170112	30			100	2	2
1482	110	3	WD	180112	240			100	2	2

1483	110	3	WD	190112	210			100	2	2
1484	110	3	WD	200112	210			100	2	2
1485	110	3	WD	210112	240			100	2	2
1486	110	3	WD	220112	210			100	2	2
1487	110	3	WD	230112	30			98	2	2
1488	110	3	WD	240112	60			98	2	2
1489	110	3	WD	250112	60			100	2	2
1490	110	3	WD	260112	0			100	2	2
1491	110	3	WD	270112	330			100	2	2
1492	110	3	WD	280112	60			100	2	2
1493	110	3	WD	290112	30			100	2	2
1494	110	3	WD	300112	30			98	2	2
1495	110	3	WD	310112	30			100	2	2
1496	110	3	WD	010212	30			100	2	2
1497	110	3	WD	020212	30			100	2	2
1498	110	3	WD	030212	60			100	2	2
1499	110	3	WD	040212	60			100	2	2
1500	110	3	WD	050212	60			100	2	2
1501	110	3	WD	060212	30			98	2	2
1502	110	3	WD	070212	30			100	2	2
1503	110	3	WD	080212	30			100	2	2
1504	110	3	WD	090212	180			13	2	2
1505	110	3	WD	100212				0	2	9
1506	110	3	WD	110212				0	2	9
1507	110	3	WD	120212				0	2	9
1508	110	3	WD	130212	210			48	2	2
1509	110	3	WD	140212	120			29	2	2
1510	110	3	WD	150212				0	2	9
1511	110	3	WD	160212				0	2	9
1512	110	3	WD	170212				0	2	9
1513	110	3	WD	180212				0	2	9
1514	110	3	WD	190212				0	2	9
1515	110	3	WD	200212	60			52	2	2
1516	110	3	WD	210212	30			100	2	2
1517	110	3	WD	220212	30			100	2	2
1518	110	3	WD	230212	210			100	2	2
1519	110	3	WD	240212	180			100	2	2
1520	110	3	WD	250212	0			100	2	2
1521	110	3	WD	260212	30			100	2	2
1522	110	3	WD	270212	270			96	2	2
1523	110	3	WD	280212	180			100	2	2
1524	110	3	WD	290212	0			100	2	2
1525	110	3	WD	010312	240			100	2	2
1526	110	3	WD	020312	0			100	2	2
1527	110	3	WD	030312	30			100	2	2
1528	110	3	WD	040312	0			100	2	2
1529	110	3	WD	050312	30			100	2	2
1530	110	3	WD	060312	30			100	2	2
1531	110	3	WD	070312	0			100	2	2

1532	110	3	WD	080312	30			100	2	2
1533	110	3	WD	090312	30			100	2	2
1534	110	3	WD	100312	30			100	2	2
1535	110	3	WD	110312	240			100	2	2
1536	110	3	WD	120312	60			100	2	2
1537	110	3	WD	130312	210			100	2	2
1538	110	3	WD	140312	60			98	2	2
1539	110	3	WD	150312	180			100	2	2
1540	110	3	WD	160312	240			100	2	2
1541	110	3	WD	170312	210			100	2	2
1542	110	3	WD	180312	210			100	2	2
1543	110	3	WD	190312	210			100	2	2
1544	110	3	WD	200312	60			100	2	2
1545	110	3	WD	210312	30			100	2	2
1546	110	3	WD	220312	0			100	2	2
1547	110	3	WD	230312	270			100	2	2
1548	110	3	WD	240312	30			100	2	2
1549	110	3	WD	250312	180			100	2	2
1550	110	3	WD	260312	30			98	2	2
1551	110	3	WD	270312	180			100	2	2
1552	110	3	WD	280312	180			100	2	2
1553	110	3	WD	290312	0			100	2	2
1554	110	3	WD	300312	60			100	2	2
1555	110	3	WD	310312	210			100	2	2
1556	110	3	WD	010412	30			90	2	2
1557	110	3	WD	020412	210			100	2	2
1558	110	3	WD	030412	210			100	2	2
1559	110	3	WD	040412	210			100	2	2
1560	110	3	WD	050412	180			100	2	2
1561	110	3	WD	060412	180			100	2	2
1562	110	3	WD	070412	60			100	2	2
1563	110	3	WD	080412	30			100	2	2
1564	110	3	WD	090412	60			100	2	2
1565	110	3	WD	100412	240			100	2	2
1566	110	3	WD	110412	210			100	2	2
1567	110	3	WD	120412	210			100	2	2
1568	110	3	WD	130412	60			100	2	2
1569	110	3	WD	140412	60			100	2	2
1570	110	3	WD	150412	180			100	2	2
1571	110	3	WD	160412	60			100	2	2
1572	110	3	WD	170412	30			100	2	2
1573	110	3	WD	180412	300			100	2	2
1574	110	3	WD	190412	240			100	2	2
1575	110	3	WD	200412	210			100	2	2
1576	110	3	WD	210412	210			100	2	2
1577	110	3	WD	220412	210			100	2	2
1578	110	3	WD	230412	0			100	2	2
1579	110	3	WD	240412	240			100	2	2
1580	110	3	WD	250412	210			100	2	2

1581	110	3	WD	260412	210			100	2	2
1582	110	3	WD	270412	30			100	2	2
1583	110	3	WD	280412	0			100	2	2
1584	110	3	WD	290412	210			100	2	2
1585	110	3	WD	300412	210			100	2	2
1586	110	3	WD	010512	0			100	2	2
1587	110	3	WD	020512	150			100	2	2
1588	110	3	WD	030512	210			100	2	2
1589	110	3	WD	040512	30			100	2	2
1590	110	3	WD	050512	210			100	2	2
1591	110	3	WD	060512	210			100	2	2
1592	110	3	WD	070512	210			100	2	2
1593	110	3	WD	080512	300			100	2	2
1594	110	3	WD	090512	0			100	2	2
1595	110	3	WD	100512	0			100	2	2
1596	110	3	WD	110512	210			100	2	2
1597	110	3	WD	120512	30			100	2	2
1598	110	3	WD	130512	210			100	2	2
1599	110	3	WD	140512	60			100	2	2
1600	110	3	WD	150512	60			67	2	2
1601	110	3	WD	160512				0	2	9
1602	110	3	WD	170512				0	2	9
1603	110	3	WD	180512				0	2	9
1604	110	3	WD	190512				0	2	9
1605	110	3	WD	200512				0	2	9
1606	110	3	WD	210512				0	2	9
1607	110	3	WD	220512				0	2	9
1608	110	3	WD	230512				0	2	9
1609	110	3	WD	240512				0	2	9
1610	110	3	WD	250512				0	2	9
1611	110	3	WD	260512				0	2	9
1612	110	3	WD	270512				0	2	9
1613	110	3	WD	280512				0	2	9
1614	110	3	WD	290512				0	2	9
1615	110	3	WD	300512	210			54	2	2
1616	110	3	WD	310512	210			98	2	2
1617	110	3	WD	010612	30			100	2	2
1618	110	3	WD	020612	270			100	2	2
1619	110	3	WD	030612	210			100	2	2
1620	110	3	WD	040612	240			100	2	2
1621	110	3	WD	050612	240			100	2	2
1622	110	3	WD	060612	180			100	2	2
1623	110	3	WD	070612	240			100	2	2
1624	110	3	WD	080612	210			100	2	2
1625	110	3	WD	090612	30			58	2	2
1626	110	3	WD	100612				0	2	9
1627	110	3	WD	110612				0	2	9
1628	110	3	WD	120612				0	2	9
1629	110	3	WD	130612				0	2	9

1630	110	3	WD	140612				0	2	9
1631	110	3	WD	150612	330			38	2	2
1632	110	3	WD	160612	0			100	2	2
1633	110	3	WD	170612	0			100	2	2
1634	110	3	WD	180612	330			100	2	2
1635	110	3	WD	190612	0			100	2	2
1636	110	3	WD	200612	270			100	2	2
1637	110	3	WD	210612	0			100	2	2
1638	110	3	WD	220612	60			100	2	2
1639	110	3	WD	230612	60			100	2	2
1640	110	3	WD	240612	0			100	2	2
1641	110	3	WD	250612	60			100	2	2
1642	110	3	WD	260612	0			100	2	2
1643	110	3	WD	270612	330			100	2	2
1644	110	3	WD	280612	300			100	2	2
1645	110	3	WD	290612	270			100	2	2
1646	110	3	WD	300612	270			100	2	2
1647	110	3	WD	010712	0			100	2	2
1648	110	3	WD	020712	30			100	2	2
1649	110	3	WD	030712	240			100	2	2
1650	110	3	WD	040712	30			100	2	2
1651	110	3	WD	050712	0			100	2	2
1652	110	3	WD	060712	180			100	2	2
1653	110	3	WD	070712	240			100	2	2
1654	110	3	WD	080712	210			100	2	2
1655	110	3	WD	090712	0			100	2	2
1656	110	3	WD	100712	240			100	2	2
1657	110	3	WD	110712	240			100	2	2
1658	110	3	WD	120712	0			100	2	2
1659	110	3	WD	130712	30			100	2	2
1660	110	3	WD	140712	210			100	2	2
1661	110	3	WD	150712	60			42	2	2
1662	110	3	WD	160712				0	2	9
1663	110	3	WD	170712	240			67	2	2
1664	110	3	WD	180712	330			100	2	2
1665	110	3	WD	190712	240			100	2	2
1666	110	3	WD	200712	30			100	2	2
1667	110	3	WD	210712	60			100	2	2
1668	110	3	WD	220712	60			100	2	2
1669	110	3	WD	230712	60			100	2	2
1670	110	3	WD	240712	60			100	2	2
1671	110	3	WD	250712	60			100	2	2
1672	110	3	WD	260712	180			100	2	2
1673	110	3	WD	270712	180			100	2	2
1674	110	3	WD	280712	300			100	2	2
1675	110	3	WD	290712	30			100	2	2
1676	110	3	WD	300712	60			100	2	2
1677	110	3	WD	310712	90			100	2	2
1678	110	3	WD	010812	330			100	2	2

1679	110	3	WD	020812	0			100	2	2
1680	110	3	WD	030812	0			100	2	2
1681	110	3	WD	040812	180			21	2	2
1682	110	3	WD	050812				0	2	9
1683	110	3	WD	060812				0	2	9
1684	110	3	WD	070812				0	2	9
1685	110	3	WD	080812				0	2	9
1686	110	3	WD	090812				0	2	9
1687	110	3	WD	100812				0	2	9
1688	110	3	WD	110812				0	2	9
1689	110	3	WD	120812				0	2	9
1690	110	3	WD	130812				0	2	9
1691	110	3	WD	140812				0	2	9
1692	110	3	WD	150812				0	2	9
1693	110	3	WD	160812				0	2	9
1694	110	3	WD	170812				0	2	9
1695	110	3	WD	180812				0	2	9
1696	110	3	WD	190812				0	2	9
1697	110	3	WD	200812				0	2	9
1698	110	3	WD	210812				0	2	9
1699	110	3	WD	220812	270			58	2	2
1700	110	3	WD	230812	30			100	2	2
1701	110	3	WD	240812	210			100	2	2
1702	110	3	WD	250812	210			100	2	2
1703	110	3	WD	260812	30			100	2	2
1704	110	3	WD	270812	90			100	2	2
1705	110	3	WD	280812	0			100	2	2
1706	110	3	WD	290812	0			100	2	2
1707	110	3	WD	300812	0			100	2	2
1708	110	3	WD	310812	60			98	2	2
1709	110	3	WD	010912	60			100	2	2
1710	110	3	WD	020912	240			100	2	2
1711	110	3	WD	030912	60			100	2	2
1712	110	3	WD	040912	90			100	2	2
1713	110	3	WD	050912	270			100	2	2
1714	110	3	WD	060912	240			100	2	2
1715	110	3	WD	070912	180			98	2	2
1716	110	3	WD	080912	180			100	2	2
1717	110	3	WD	090912	180			100	2	2
1718	110	3	WD	100912	210			100	2	2
1719	110	3	WD	110912	180			100	2	2
1720	110	3	WD	120912	300			100	2	2
1721	110	3	WD	130912	60			100	2	2
1722	110	3	WD	140912	240			100	2	2
1723	110	3	WD	150912	180			100	2	2
1724	110	3	WD	160912	60			100	2	2
1725	110	3	WD	170912	210			100	2	2
1726	110	3	WD	180912	210			100	2	2
1727	110	3	WD	190912	60			100	2	2

1728	110	3	WD	200912	60			100	2	2
1729	110	3	WD	210912	210			100	2	2
1730	110	3	WD	220912	210			100	2	2
1731	110	3	WD	230912	180			100	2	2
1732	110	3	WD	240912	180			100	2	2
1733	110	3	WD	250912	210			100	2	2
1734	110	3	WD	260912	210			100	2	2
1735	110	3	WD	270912	240			100	2	2
1736	110	3	WD	280912	60			100	2	2
1737	110	3	WD	290912	210			100	2	2
1738	110	3	WD	300912	60			100	2	2
1739	110	3	WD	011012	180			100	2	2
1740	110	3	WD	021012	60			100	2	2
1741	110	3	WD	031012	180			17	2	2
1742	110	3	WD	041012	240			44	2	2
1743	110	3	WD	051012	30			100	2	2
1744	110	3	WD	061012	240			100	2	2
1745	110	3	WD	071012	210			100	2	2
1746	110	3	WD	081012	330			100	2	2
1747	110	3	WD	091012	210			100	2	2
1748	110	3	WD	101012	30			100	2	2
1749	110	3	WD	111012	30			100	2	2
1750	110	3	WD	121012	60			100	2	2
1751	110	3	WD	131012	0			100	2	2
1752	110	3	WD	141012	90			100	2	2
1753	110	3	WD	151012	60			98	2	2
1754	110	3	WD	161012	60			100	2	2
1755	110	3	WD	171012	240			100	2	2
1756	110	3	WD	181012	240			100	2	2
1757	110	3	WD	191012	180			100	2	2
1758	110	3	WD	201012	150			100	2	2
1759	110	3	WD	211012	60			100	2	2
1760	110	3	WD	221012	180			100	2	2
1761	110	3	WD	231012	150			100	2	2
1762	110	3	WD	241012	30			100	2	2
1763	110	3	WD	251012	90			100	2	2
1764	110	3	WD	261012	30			98	2	2
1765	110	3	WD	271012	60			100	2	2
1766	110	3	WD	281012	30			69	2	2
1767	110	3	WD	291012	60			92	2	2
1768	110	3	WD	301012	210			100	2	2
1769	110	3	WD	311012	30			98	2	2
1770	110	3	WD	011112	60			100	2	2
1771	110	3	WD	021112	30			100	2	2
1772	110	3	WD	031112	180			100	2	2
1773	110	3	WD	041112	240			100	2	2
1774	110	3	WD	051112	270			98	2	2
1775	110	3	WD	061112	60			100	2	2
1776	110	3	WD	071112	210			100	2	2

1777	110	3	WD	081112	180			100	2	2
1778	110	3	WD	091112	30			100	2	2
1779	110	3	WD	101112	0			100	2	2
1780	110	3	WD	111112	0			100	2	2
1781	110	3	WD	121112	30			98	2	2
1782	110	3	WD	131112	60			100	2	2
1783	110	3	WD	141112	30			100	2	2
1784	110	3	WD	151112	60			100	2	2
1785	110	3	WD	161112	30			100	2	2
1786	110	3	WD	171112	180			100	2	2
1787	110	3	WD	181112	0			100	2	2
1788	110	3	WD	191112	30			98	2	2
1789	110	3	WD	201112	30			100	2	2
1790	110	3	WD	211112	240			100	2	2
1791	110	3	WD	221112	30			100	2	2
1792	110	3	WD	231112	60			100	2	2
1793	110	3	WD	241112	150			100	2	2
1794	110	3	WD	251112	150			100	2	2
1795	110	3	WD	261112	240			98	2	2
1796	110	3	WD	271112	270			100	2	2
1797	110	3	WD	281112	60			100	2	2
1798	110	3	WD	291112	150			100	2	2
1799	110	3	WD	301112	180			98	2	2
1800	110	3	WD	011212	30			100	2	2
1801	110	3	WD	021212	30			94	2	2
1802	110	3	WD	031212	210			98	2	2
1803	110	3	WD	041212	60			83	2	2
1804	110	3	WD	051212	30			92	2	2
1805	110	3	WD	061212	180			94	2	2
1806	110	3	WD	071212	0			98	2	2
1807	110	3	WD	081212	60			100	2	2
1808	110	3	WD	091212	240			100	2	2
1809	110	3	WD	101212	120			98	2	2
1810	110	3	WD	111212	180			100	2	2
1811	110	3	WD	121212	210			100	2	2
1812	110	3	WD	131212	150			13	2	2
1813	110	3	WD	141212				0	2	9
1814	110	3	WD	151212				0	2	9
1815	110	3	WD	161212				0	2	9
1816	110	3	WD	171212	0			56	2	2
1817	110	3	WD	181212	60			100	2	2
1818	110	3	WD	191212	240			100	2	2
1819	110	3	WD	201212	330			100	2	2
1820	110	3	WD	211212	30			81	2	2
1821	110	3	WD	221212	300			60	2	2
1822	110	3	WD	231212	270			100	2	2
1823	110	3	WD	241212	210			100	2	2
1824	110	3	WD	251212	210			100	2	2
1825	110	3	WD	261212	60			100	2	2

1826	110	3	WD	271212	210			98	2	2
1827	110	3	WD	281212	30			100	2	2
1828	110	3	WD	291212	90			100	2	2
1829	110	3	WD	301212	60			92	2	2
1830	110	3	WD	311212	0			85	2	2
1831	110	4	SR	010112	42	51	177	100	2	2
1832	110	4	SR	020112	88	53	530	100	2	2
1833	110	4	SR	030112	24	8	151	100	2	2
1834	110	4	SR	040112	37	33	309	100	2	2
1835	110	4	SR	050112	44	21	235	100	2	2
1836	110	4	SR	060112				94	2	9
1837	110	4	SR	070112	91	17	443	100	2	2
1838	110	4	SR	080112				94	2	9
1839	110	4	SR	090112				94	2	9
1840	110	4	SR	100112	87	15	449	100	2	2
1841	110	4	SR	110112	65	18	392	100	2	2
1842	110	4	SR	120112	102	18	443	100	2	2
1843	110	4	SR	130112				94	2	9
1844	110	4	SR	140112				88	2	9
1845	110	4	SR	150112	107	27	472	100	2	2
1846	110	4	SR	160112	118	26	506	100	2	2
1847	110	4	SR	170112				94	2	9
1848	110	4	SR	180112	92	29	460	100	2	2
1849	110	4	SR	190112	40	5	317	100	2	2
1850	110	4	SR	200112	13	3	78	100	2	2
1851	110	4	SR	210112				94	2	9
1852	110	4	SR	220112	88	9	462	100	2	2
1853	110	4	SR	230112	87	21	509	100	2	2
1854	110	4	SR	240112				94	2	9
1855	110	4	SR	250112	119	16	596	100	2	2
1856	110	4	SR	260112	126	47	539	100	2	2
1857	110	4	SR	270112	127	46	520	100	2	2
1858	110	4	SR	280112				94	2	9
1859	110	4	SR	290112	58	19	329	100	2	2
1860	110	4	SR	300112	0	0	0	100	2	2
1861	110	4	SR	310112	103	27	554	100	2	2
1862	110	4	SR	010212	78	12	316	100	2	2
1863	110	4	SR	020212	95	12	509	100	2	2
1864	110	4	SR	030212	38	8	185	100	2	2
1865	110	4	SR	040212				95	2	9
1866	110	4	SR	050212	81	0	352	100	2	2
1867	110	4	SR	060212	54	7	291	100	2	2
1868	110	4	SR	070212	29	13	123	100	2	2
1869	110	4	SR	080212				95	2	9
1870	110	4	SR	090212	125	33	605	100	2	2
1871	110	4	SR	100212	43	13	237	100	2	2
1872	110	4	SR	110212				89	2	9
1873	110	4	SR	120212	15	3	69	100	2	2
1874	110	4	SR	130212	53	0	207	100	2	2

1875	110	4	SR	140212	90	47	562	100	2	2
1876	110	4	SR	150212	104	11	584	100	2	2
1877	110	4	SR	160212				95	2	9
1878	110	4	SR	170212	134	25	671	100	2	2
1879	110	4	SR	180212	181	0	692	100	2	2
1880	110	4	SR	190212	77	16	319	100	2	2
1881	110	4	SR	200212				95	2	9
1882	110	4	SR	210212	144	17	699	100	2	2
1883	110	4	SR	220212	193	22	730	100	2	2
1884	110	4	SR	230212				90	2	9
1885	110	4	SR	240212	192	19	742	100	2	2
1886	110	4	SR	250212	174	17	760	100	2	2
1887	110	4	SR	260212				95	2	9
1888	110	4	SR	270212	194	37	768	100	2	2
1889	110	4	SR	280212	140	26	547	100	2	2
1890	110	4	SR	290212				95	2	9
1891	110	4	SR	010312	70	13	467	100	2	2
1892	110	4	SR	020312				90	2	9
1893	110	4	SR	030312	152	9	567	100	2	2
1894	110	4	SR	040312	184	32	674	100	2	2
1895	110	4	SR	050312	206	12	753	100	2	2
1896	110	4	SR	060312	219	20	821	100	2	2
1897	110	4	SR	070312	222	31	798	100	2	2
1898	110	4	SR	080312	221	25	802	100	2	2
1899	110	4	SR	090312				95	2	9
1900	110	4	SR	100312	232	53	884	100	2	2
1901	110	4	SR	110312	172	17	784	100	2	2
1902	110	4	SR	120312				95	2	9
1903	110	4	SR	130312				95	2	9
1904	110	4	SR	140312	190	18	1055	100	2	2
1905	110	4	SR	150312				96	2	9
1906	110	4	SR	160312	256	21	877	100	2	2
1907	110	4	SR	170312	265	18	892	100	2	2
1908	110	4	SR	180312				96	2	9
1909	110	4	SR	190312				96	2	9
1910	110	4	SR	200312				92	2	9
1911	110	4	SR	210312	245	27	845	100	2	2
1912	110	4	SR	220312	228	28	896	100	2	2
1913	110	4	SR	230312	267	21	899	100	2	2
1914	110	4	SR	240312	246	27	865	100	2	2
1915	110	4	SR	250312	210	17	820	100	2	2
1916	110	4	SR	260312	291	52	948	100	2	2
1917	110	4	SR	270312	291	50	950	100	2	2
1918	110	4	SR	280312				96	2	9
1919	110	4	SR	290312	214	19	885	100	2	2
1920	110	4	SR	300312				96	2	9
1921	110	4	SR	310312	261	49	968	100	2	2
1922	110	4	SR	010412				92	2	9
1923	110	4	SR	020412	311	97	987	100	2	2

1924	110	4	SR	030412				92	2	9
1925	110	4	SR	040412				92	2	9
1926	110	4	SR	050412	238	0	847	100	2	2
1927	110	4	SR	060412				96	2	9
1928	110	4	SR	070412				96	2	9
1929	110	4	SR	080412	98	4	471	100	2	2
1930	110	4	SR	090412	309	26	981	100	2	2
1931	110	4	SR	100412	334	34	1034	100	2	2
1932	110	4	SR	110412	207	2	1033	100	2	2
1933	110	4	SR	120412	251	27	1005	100	2	2
1934	110	4	SR	130412				92	2	9
1935	110	4	SR	140412	66	5	290	100	2	2
1936	110	4	SR	150412	1	0	17	100	2	2
1937	110	4	SR	160412				96	2	9
1938	110	4	SR	170412				96	2	9
1939	110	4	SR	180412	223	15	1130	100	2	2
1940	110	4	SR	190412	280	37	983	100	2	2
1941	110	4	SR	200412				96	2	9
1942	110	4	SR	210412	234	12	1048	100	2	2
1943	110	4	SR	220412	189	17	804	100	2	2
1944	110	4	SR	230412	137	24	626	100	2	2
1945	110	4	SR	240412	134	23	718	100	2	2
1946	110	4	SR	250412				96	2	9
1947	110	4	SR	260412	386	47	1168	100	2	2
1948	110	4	SR	270412				96	2	9
1949	110	4	SR	280412				96	2	9
1950	110	4	SR	290412	377	10	1115	100	2	2
1951	110	4	SR	300412	347	22	1096	100	2	2
1952	110	4	SR	010512				93	2	9
1953	110	4	SR	020512	299	0	1094	100	2	2
1954	110	4	SR	030512	362	16	1115	100	2	2
1955	110	4	SR	040512	371	9	1125	100	2	2
1956	110	4	SR	050512	371	31	1177	100	2	2
1957	110	4	SR	060512	231	17	1064	100	2	2
1958	110	4	SR	070512	101	10	376	100	2	2
1959	110	4	SR	080512				96	2	9
1960	110	4	SR	090512				96	2	9
1961	110	4	SR	100512	406	13	1124	100	2	2
1962	110	4	SR	110512				97	2	9
1963	110	4	SR	120512	351	0	1116	100	2	2
1964	110	4	SR	130512				93	2	9
1965	110	4	SR	140512	142	0	687	100	2	2
1966	110	4	SR	150512	274	3	1088	100	2	2
1967	110	4	SR	160512				90	2	9
1968	110	4	SR	170512				97	2	9
1969	110	4	SR	180512				93	2	9
1970	110	4	SR	190512	426	25	1168	100	2	2
1971	110	4	SR	200512	391	24	1113	100	2	2
1972	110	4	SR	210512	152	4	1114	100	2	2

1973	110	4	SR	220512				93	2	9
1974	110	4	SR	230512	228	0	1133	100	2	2
1975	110	4	SR	240512				97	2	9
1976	110	4	SR	250512	214	12	1182	100	2	2
1977	110	4	SR	260512				97	2	9
1978	110	4	SR	270512	363	31	1185	100	2	2
1979	110	4	SR	280512	381	13	1146	100	2	2
1980	110	4	SR	290512				93	2	9
1981	110	4	SR	300512				97	2	9
1982	110	4	SR	310512				97	2	9
1983	110	4	SR	010612				97	2	9
1984	110	4	SR	020612	238	5	1009	100	2	2
1985	110	4	SR	030612	387	25	1104	100	2	2
1986	110	4	SR	040612				93	2	9
1987	110	4	SR	050612				93	2	9
1988	110	4	SR	060612				93	2	9
1989	110	4	SR	070612	369	28	1175	100	2	2
1990	110	4	SR	080612	346	40	1143	100	2	2
1991	110	4	SR	090612				93	2	9
1992	110	4	SR	100612	283	14	1176	100	2	2
1993	110	4	SR	110612				97	2	9
1994	110	4	SR	120612	165	16	677	100	2	2
1995	110	4	SR	130612				97	2	9
1996	110	4	SR	140612	402	17	1199	100	2	2
1997	110	4	SR	150612	438	39	1177	100	2	2
1998	110	4	SR	160612	445	41	1188	100	2	2
1999	110	4	SR	170612	437	33	1168	100	2	2
2000	110	4	SR	180612	434	34	1161	100	2	2
2001	110	4	SR	190612	426	33	1184	100	2	2
2002	110	4	SR	200612	413	33	1142	100	2	2
2003	110	4	SR	210612				97	2	9
2004	110	4	SR	220612				97	2	9
2005	110	4	SR	230612	0	0	0	100	2	2
2006	110	4	SR	240612	423	29	1148	100	2	2
2007	110	4	SR	250612				97	2	9
2008	110	4	SR	260612				97	2	9
2009	110	4	SR	270612	439	33	1191	100	2	2
2010	110	4	SR	280612				97	2	9
2011	110	4	SR	290612	418	40	1127	100	2	2
2012	110	4	SR	300612				93	2	9
2013	110	4	SR	010712	411	36	1114	100	2	2
2014	110	4	SR	020712	410	33	1136	100	2	2
2015	110	4	SR	030712	316	32	1095	100	2	2
2016	110	4	SR	040712				97	2	9
2017	110	4	SR	050712				93	2	9
2018	110	4	SR	060712	322	23	1105	100	2	2
2019	110	4	SR	070712				93	2	9
2020	110	4	SR	080712				97	2	9
2021	110	4	SR	090712	431	23	1154	100	2	2

2022	110	4	SR	100712				97	2	9
2023	110	4	SR	110712				97	2	9
2024	110	4	SR	120712				97	2	9
2025	110	4	SR	130712				97	2	9
2026	110	4	SR	140712				93	2	9
2027	110	4	SR	150712	0	0	0	100	2	2
2028	110	4	SR	160712	298	6	1197	100	2	2
2029	110	4	SR	170712	425	18	1146	100	2	2
2030	110	4	SR	180712				97	2	9
2031	110	4	SR	190712	0	0	0	100	2	2
2032	110	4	SR	200712	400	13	1125	100	2	2
2033	110	4	SR	210712				97	2	9
2034	110	4	SR	220712				97	2	9
2035	110	4	SR	230712	230	8	973	100	2	2
2036	110	4	SR	240712				97	2	9
2037	110	4	SR	250712	211	10	950	100	2	2
2038	110	4	SR	260712	329	17	1087	100	2	2
2039	110	4	SR	270712				93	2	9
2040	110	4	SR	280712	378	49	1074	100	2	2
2041	110	4	SR	290712	333	59	1090	100	2	2
2042	110	4	SR	300712	339	51	1026	100	2	2
2043	110	4	SR	310712				96	2	9
2044	110	4	SR	010812				96	2	9
2045	110	4	SR	020812	391	33	1107	100	2	2
2046	110	4	SR	030812				96	2	9
2047	110	4	SR	040812				93	2	9
2048	110	4	SR	050812	375	42	1095	100	2	2
2049	110	4	SR	060812				96	2	9
2050	110	4	SR	070812				96	2	9
2051	110	4	SR	080812	365	26	1130	100	2	2
2052	110	4	SR	090812				96	2	9
2053	110	4	SR	100812	321	19	1058	100	2	2
2054	110	4	SR	110812	303	16	1155	100	2	2
2055	110	4	SR	120812				96	2	9
2056	110	4	SR	130812				96	2	9
2057	110	4	SR	140812				93	2	9
2058	110	4	SR	150812	353	14	1046	100	2	2
2059	110	4	SR	160812				96	2	9
2060	110	4	SR	170812				96	2	9
2061	110	4	SR	180812	327	75	998	100	2	2
2062	110	4	SR	190812				96	2	9
2063	110	4	SR	200812				96	2	9
2064	110	4	SR	210812				96	2	9
2065	110	4	SR	220812				92	2	9
2066	110	4	SR	230812	313	47	1019	100	2	2
2067	110	4	SR	240812				96	2	9
2068	110	4	SR	250812	332	39	996	100	2	2
2069	110	4	SR	260812				96	2	9
2070	110	4	SR	270812	319	20	1067	100	2	2

2071	110	4	SR	280812	338	38	1031	100	2	2
2072	110	4	SR	290812	287	21	988	100	2	2
2073	110	4	SR	300812	312	26	966	100	2	2
2074	110	4	SR	310812	263	16	961	100	2	2
2075	110	4	SR	010912	252	24	967	100	2	2
2076	110	4	SR	020912	297	26	973	100	2	2
2077	110	4	SR	030912	274	33	905	100	2	2
2078	110	4	SR	040912	234	11	912	100	2	2
2079	110	4	SR	050912	264	5	992	100	2	2
2080	110	4	SR	060912				96	2	9
2081	110	4	SR	070912				96	2	9
2082	110	4	SR	080912	285	9	940	100	2	2
2083	110	4	SR	090912	293	28	930	100	2	2
2084	110	4	SR	100912	297	30	943	100	2	2
2085	110	4	SR	110912	247	39	912	100	2	2
2086	110	4	SR	120912	283	36	910	100	2	2
2087	110	4	SR	130912				96	2	9
2088	110	4	SR	140912	264	31	893	100	2	2
2089	110	4	SR	150912				92	2	9
2090	110	4	SR	160912	263	21	870	100	2	2
2091	110	4	SR	170912	254	4	907	100	2	2
2092	110	4	SR	180912	64	11	702	100	2	2
2093	110	4	SR	190912	137	6	839	100	2	2
2094	110	4	SR	200912	163	6	816	100	2	2
2095	110	4	SR	210912	178	18	892	100	2	2
2096	110	4	SR	220912				96	2	9
2097	110	4	SR	230912	254	49	856	100	2	2
2098	110	4	SR	240912	245	36	849	100	2	2
2099	110	4	SR	250912	238	35	818	100	2	2
2100	110	4	SR	260912	218	27	783	100	2	2
2101	110	4	SR	270912	220	26	810	100	2	2
2102	110	4	SR	280912	230	24	836	100	2	2
2103	110	4	SR	290912	234	33	804	100	2	2
2104	110	4	SR	300912	231	25	809	100	2	2
2105	110	4	SR	011012	229	21	821	100	2	2
2106	110	4	SR	021012	229	22	804	100	2	2
2107	110	4	SR	031012	217	18	788	100	2	2
2108	110	4	SR	041012				95	2	9
2109	110	4	SR	051012	205	58	753	100	2	2
2110	110	4	SR	061012	12	5	64	100	2	2
2111	110	4	SR	071012	131	42	541	100	2	2
2112	110	4	SR	081012	172	34	800	100	2	2
2113	110	4	SR	091012	128	39	530	100	2	2
2114	110	4	SR	101012				86	2	9
2115	110	4	SR	111012	139	18	713	100	2	2
2116	110	4	SR	121012				95	2	9
2117	110	4	SR	131012	205	42	876	100	2	2
2118	110	4	SR	141012				95	2	9
2119	110	4	SR	151012	181	17	727	100	2	2

2120	110	4	SR	161012				95	2	9
2121	110	4	SR	171012				95	2	9
2122	110	4	SR	181012	154	21	734	100	2	2
2123	110	4	SR	191012	16	0	113	100	2	2
2124	110	4	SR	201012				95	2	9
2125	110	4	SR	211012	41	6	206	100	2	2
2126	110	4	SR	221012	43	4	224	100	2	2
2127	110	4	SR	231012	33	8	186	100	2	2
2128	110	4	SR	241012	47	12	215	100	2	2
2129	110	4	SR	251012	38	6	172	100	2	2
2130	110	4	SR	261012	28	3	171	100	2	2
2131	110	4	SR	271012	34	3	144	100	2	2
2132	110	4	SR	281012	46	18	272	100	2	2
2133	110	4	SR	291012	109	29	518	100	2	2
2134	110	4	SR	301012				95	2	9
2135	110	4	SR	311012	18	5	83	100	2	2
2136	110	4	SR	011112	22	5	95	100	2	2
2137	110	4	SR	021112	59	12	402	100	2	2
2138	110	4	SR	031112	103	26	536	100	2	2
2139	110	4	SR	041112	111	23	518	100	2	2
2140	110	4	SR	051112	44	9	300	100	2	2
2141	110	4	SR	061112	113	7	506	100	2	2
2142	110	4	SR	071112	62	22	367	100	2	2
2143	110	4	SR	081112				89	2	9
2144	110	4	SR	091112				94	2	9
2145	110	4	SR	101112	101	9	510	100	2	2
2146	110	4	SR	111112	80	29	417	100	2	2
2147	110	4	SR	121112	87	15	480	100	2	2
2148	110	4	SR	131112	73	12	413	100	2	2
2149	110	4	SR	141112	81	10	506	100	2	2
2150	110	4	SR	151112				94	2	9
2151	110	4	SR	161112				94	2	9
2152	110	4	SR	171112	18	9	84	100	2	2
2153	110	4	SR	181112	13	7	56	100	2	2
2154	110	4	SR	191112				0	2	9
2155	110	4	SR	201112	10	5	51	100	2	2
2156	110	4	SR	211112				88	2	9
2157	110	4	SR	221112	9	3	47	100	2	2
2158	110	4	SR	231112	12	4	63	100	2	2
2159	110	4	SR	241112	21	8	106	100	2	2
2160	110	4	SR	251112	13	6	58	100	2	2
2161	110	4	SR	261112	25	11	132	100	2	2
2162	110	4	SR	271112	73	22	420	100	2	2
2163	110	4	SR	281112	37	9	173	100	2	2
2164	110	4	SR	291112	19	9	94	100	2	2
2165	110	4	SR	301112				94	2	9
2166	110	4	SR	011212	40	12	246	100	2	2
2167	110	4	SR	021212	24	22	178	100	2	2
2168	110	4	SR	031212	81	27	429	100	2	2

2169	110	4	SR	041212				94	2	9
2170	110	4	SR	051212	59	17	262	100	2	2
2171	110	4	SR	061212	87	41	423	100	2	2
2172	110	4	SR	071212				88	2	9
2173	110	4	SR	081212				0	2	9
2174	110	4	SR	091212				0	2	9
2175	110	4	SR	101212				0	2	9
2176	110	4	SR	111212	31	7	239	100	2	2
2177	110	4	SR	121212	61	5	367	100	2	2
2178	110	4	SR	131212	32	3	303	100	2	2
2179	110	4	SR	141212	28	5	157	100	2	2
2180	110	4	SR	151212				0	2	9
2181	110	4	SR	161212				50	2	9
2182	110	4	SR	171212	39	15	229	100	2	2
2183	110	4	SR	181212	15	7	75	100	2	2
2184	110	4	SR	191212	84	28	415	100	2	2
2185	110	4	SR	201212	93	40	481	100	2	2
2186	110	4	SR	211212				0	2	9
2187	110	4	SR	221212	58	30	328	100	2	2
2188	110	4	SR	231212	70	4	399	100	2	2
2189	110	4	SR	241212	42	26	204	100	2	2
2190	110	4	SR	251212	38	11	214	100	2	2
2191	110	4	SR	261212	39	21	197	100	2	2
2192	110	4	SR	271212	29	12	166	100	2	2
2193	110	4	SR	281212	14	7	83	100	2	2
2194	110	4	SR	291212	18	9	96	100	2	2
2195	110	4	SR	301212	32	20	162	100	2	2
2196	110	4	SR	311212				100	2	2

Tablica 3.8.4. Opcijski meteorološki parametri (572012.meo)

Redni broj	Ploha	Instrument	Parametar	Datum	Prosječna vrijednost	Min	Max	completeness	origin	status
1	110	5	ST	010112	3.1	2.7	3.9	100	2	2
2	110	5	ST	020112	3.5	2.1	5.0	100	2	2
3	110	5	ST	030112	5.5	5.0	6.0	100	2	2
4	110	5	ST	040112	5.8	5.2	6.5	100	2	2
5	110	5	ST	050112	5.1	4.4	5.7	100	2	2
6	110	5	ST	060112	4.4	3.5	5.2	100	2	2
7	110	5	ST	070112	3.4	2.5	4.4	100	2	2
8	110	5	ST	080112	3.4	2.7	4.4	100	2	2
9	110	5	ST	090112	3.7	2.8	4.9	100	2	2
10	110	5	ST	100112	4.0	3.2	5.0	100	2	2
11	110	5	ST	110112	3.3	2.6	4.4	100	2	2
12	110	5	ST	120112	2.7	1.9	3.9	100	2	2
13	110	5	ST	130112	2.5	1.7	3.6	100	2	2
14	110	5	ST	140112	2.2	1.5	3.2	100	2	2
15	110	5	ST	150112	1.5	0.9	2.2	100	2	2

16	110	5	ST	160112	0.9	0.5	1.4	100	2	2
17	110	5	ST	170112	0.7	0.3	1.0	100	2	2
18	110	5	ST	180112	1.6	1.0	2.7	100	2	2
19	110	5	ST	190112	1.8	0.8	3.5	100	2	2
20	110	5	ST	200112	4.0	3.0	4.6	100	2	2
21	110	5	ST	210112	2.9	2.1	4.1	100	2	2
22	110	5	ST	220112	3.7	2.3	5.4	100	2	2
23	110	5	ST	230112	5.1	4.0	6.2	100	2	2
24	110	5	ST	240112	5.0	3.8	5.4	100	2	2
25	110	5	ST	250112	3.3	2.6	4.0	100	2	2
26	110	5	ST	260112	2.1	1.4	2.8	100	2	2
27	110	5	ST	270112	1.4	0.0	1.9	100	2	2
28	110	5	ST	280112	1.0	0.6	1.5	100	2	2
29	110	5	ST	290112	1.3	1.1	1.5	100	2	2
30	110	5	ST	300112	0.1	0.0	1.3	100	2	2
31	110	5	ST	310112	0.7	0.0	1.0	100	2	2
32	110	5	ST	010212	0.5	0.4	0.7	100	2	2
33	110	5	ST	020212	0.3	0.1	0.5	100	2	2
34	110	5	ST	030212	0.1	-0.1	0.2	100	2	2
35	110	5	ST	040212	0.2	0.1	0.3	100	2	2
36	110	5	ST	050212	0.3	0.2	0.6	100	2	2
37	110	5	ST	060212	0.4	0.2	0.6	100	2	2
38	110	5	ST	070212	0.6	0.3	0.8	100	2	2
39	110	5	ST	080212	1.0	0.7	1.4	100	2	2
40	110	5	ST	090212	1.0	0.6	1.6	100	2	2
41	110	5	ST	100212	0.9	0.8	1.1	100	2	2
42	110	5	ST	110212	1.0	0.7	1.2	100	2	2
43	110	5	ST	120212	1.1	1.0	1.2	100	2	2
44	110	5	ST	130212	1.2	0.0	1.6	100	2	2
45	110	5	ST	140212	1.3	0.9	1.8	100	2	2
46	110	5	ST	150212	1.2	1.0	1.4	100	2	2
47	110	5	ST	160212	1.3	1.0	1.7	100	2	2
48	110	5	ST	170212	1.3	1.0	1.7	100	2	2
49	110	5	ST	180212	1.3	1.0	1.8	100	2	2
50	110	5	ST	190212	1.2	1.1	1.4	100	2	2
51	110	5	ST	200212	1.0	0.9	1.2	100	2	2
52	110	5	ST	210212	1.2	1.1	1.7	100	2	2
53	110	5	ST	220212	1.3	1.1	1.8	100	2	2
54	110	5	ST	230212	1.3	0.9	2.5	100	2	2
55	110	5	ST	240212	1.5	1.1	2.2	100	2	2
56	110	5	ST	250212	2.3	1.2	4.3	100	2	2
57	110	5	ST	260212	3.2	2.4	5.1	100	2	2
58	110	5	ST	270212	2.8	1.6	4.4	100	2	2
59	110	5	ST	280212	2.6	1.4	4.1	100	2	2
60	110	5	ST	290212	4.4	2.6	6.8	100	2	2
61	110	5	ST	010312	4.6	3.7	6.1	100	2	2
62	110	5	ST	020312	5.5	3.2	8.4	100	2	2
63	110	5	ST	030312	5.9	4.6	7.0	100	2	2
64	110	5	ST	040312	4.7	3.1	6.3	100	2	2

65	110	5	ST	050312	5.0	3.5	6.7	100	2	2
66	110	5	ST	060312	4.6	3.0	6.5	100	2	2
67	110	5	ST	070312	3.8	2.5	5.4	100	2	2
68	110	5	ST	080312	3.7	2.1	5.7	100	2	2
69	110	5	ST	090312	4.7	3.3	6.4	100	2	2
70	110	5	ST	100312	4.3	2.5	6.2	100	2	2
71	110	5	ST	110312	4.5	2.6	6.3	100	2	2
72	110	5	ST	120312	5.1	4.8	5.5	100	2	2
73	110	5	ST	130312	5.8	5.2	7.0	100	2	2
74	110	5	ST	140312	5.8	4.0	7.8	100	2	2
75	110	5	ST	150312	6.1	4.4	8.1	100	2	2
76	110	5	ST	160312	6.4	3.8	9.2	100	2	2
77	110	5	ST	170312	7.3	4.7	10.0	100	2	2
78	110	5	ST	180312	7.5	5.6	9.0	100	2	2
79	110	5	ST	190312	8.2	6.1	10.1	100	2	2
80	110	5	ST	200312	8.9	7.5	10.8	100	2	2
81	110	5	ST	210312	8.7	6.6	11.0	100	2	2
82	110	5	ST	220312	8.8	6.6	11.1	100	2	2
83	110	5	ST	230312	9.1	6.5	11.7	100	2	2
84	110	5	ST	240312	9.9	7.5	12.1	100	2	2
85	110	5	ST	250312	10.6	9.1	12.3	100	2	2
86	110	5	ST	260312	9.8	7.8	11.7	100	2	2
87	110	5	ST	270312	9.0	6.6	11.3	100	2	2
88	110	5	ST	280312	9.3	0.0	11.9	100	2	2
89	110	5	ST	290312	10.0	7.5	12.1	100	2	2
90	110	5	ST	300312	10.5	0.0	12.9	100	2	2
91	110	5	ST	310312	10.2	7.8	12.4	100	2	2
92	110	5	ST	010412	8.9	0.0	10.3	100	2	2
93	110	5	ST	020412	8.3	5.7	11.0	100	2	2
94	110	5	ST	030412	9.5	0.0	11.6	100	2	2
95	110	5	ST	040412	11.2	9.2	13.5	100	2	2
96	110	5	ST	050412	11.7	9.6	13.9	100	2	2
97	110	5	ST	060412	11.9	11.0	13.1	100	2	2
98	110	5	ST	070412	11.4	10.4	12.4	100	2	2
99	110	5	ST	080412	9.3	7.8	10.5	100	2	2
100	110	5	ST	090412	7.8	6.3	9.4	100	2	2
101	110	5	ST	100412	7.9	5.6	10.4	100	2	2
102	110	5	ST	110412	9.4	8.0	10.7	100	2	2
103	110	5	ST	120412	10.0	8.7	11.4	100	2	2
104	110	5	ST	130412	9.1	7.8	10.4	100	2	2
105	110	5	ST	140412	9.7	9.3	10.0	100	2	2
106	110	5	ST	150412	1.8	0.0	11.0	100	2	2
107	110	5	ST	160412	10.2	0.0	11.6	100	2	2
108	110	5	ST	170412	9.4	9.0	10.0	100	2	2
109	110	5	ST	180412	9.5	8.5	10.6	100	2	2
110	110	5	ST	190412	9.9	8.4	11.5	100	2	2
111	110	5	ST	200412	9.9	8.2	11.8	100	2	2
112	110	5	ST	210412	10.0	8.5	11.4	100	2	2
113	110	5	ST	220412	10.4	9.1	12.0	100	2	2

114	110	5	ST	230412	9.8	8.8	10.4	100	2	2
115	110	5	ST	240412	9.7	8.5	11.0	100	2	2
116	110	5	ST	250412	10.9	9.4	13.9	100	2	2
117	110	5	ST	260412	11.7	9.6	13.9	100	2	2
118	110	5	ST	270412	12.5	0.0	15.5	100	2	2
119	110	5	ST	280412	13.7	11.3	17.5	100	2	2
120	110	5	ST	290412	14.4	12.2	16.8	100	2	2
121	110	5	ST	300412	14.5	12.3	16.6	100	2	2
122	110	5	ST	010512	14.9	12.9	17.4	100	2	2
123	110	5	ST	020512	15.3	13.7	17.0	100	2	2
124	110	5	ST	030512	15.1	13.5	16.7	100	2	2
125	110	5	ST	040512	15.0	13.9	16.3	100	2	2
126	110	5	ST	050512	14.2	12.7	15.4	100	2	2
127	110	5	ST	060512	13.6	12.5	14.4	100	2	2
128	110	5	ST	070512	13.2	12.6	13.7	100	2	2
129	110	5	ST	080512	12.9	11.1	15.1	100	2	2
130	110	5	ST	090512	13.6	11.8	16.0	100	2	2
131	110	5	ST	100512	13.9	12.2	15.4	100	2	2
132	110	5	ST	110512	13.9	0.0	15.9	100	2	2
133	110	5	ST	120512	14.8	13.0	16.6	100	2	2
134	110	5	ST	130512	12.2	11.5	14.7	100	2	2
135	110	5	ST	140512	11.3	10.8	11.6	100	2	2
136	110	5	ST	150512	11.8	10.9	13.0	100	2	2
137	110	5	ST	160512	0.2	0.0	11.7	100	2	2
138	110	5	ST	170512	10.5	0.0	12.1	100	2	2
139	110	5	ST	180512	10.3	0.0	12.1	100	2	2
140	110	5	ST	190512	11.2	9.3	13.0	100	2	2
141	110	5	ST	200512	12.4	10.4	14.2	100	2	2
142	110	5	ST	210512	13.5	12.9	14.3	100	2	2
143	110	5	ST	220512	13.1	12.8	13.5	100	2	2
144	110	5	ST	230512	13.7	12.7	15.0	100	2	2
145	110	5	ST	240512	14.6	0.0	16.5	100	2	2
146	110	5	ST	250512	14.3	13.7	15.0	100	2	2
147	110	5	ST	260512	13.4	12.1	14.4	100	2	2
148	110	5	ST	270512	13.3	11.8	14.5	100	2	2
149	110	5	ST	280512	13.5	11.9	14.7	100	2	2
150	110	5	ST	290512	13.5	0.0	15.3	100	2	2
151	110	5	ST	300512	14.5	0.0	16.2	100	2	2
152	110	5	ST	310512	11.8	0.0	16.8	100	2	2
153	110	5	ST	010612	15.5	14.5	16.5	100	2	2
154	110	5	ST	020612	15.5	14.9	16.1	100	2	2
155	110	5	ST	030612	16.2	14.8	17.3	100	2	2
156	110	5	ST	040612	15.8	0.0	16.9	100	2	2
157	110	5	ST	050612	15.1	0.0	16.3	100	2	2
158	110	5	ST	060612	14.4	0.0	16.0	100	2	2
159	110	5	ST	070612	15.6	14.0	17.1	100	2	2
160	110	5	ST	080612	16.8	15.6	18.1	100	2	2
161	110	5	ST	090612	16.6	0.0	18.0	100	2	2
162	110	5	ST	100612	17.0	16.4	17.7	100	2	2

163	110	5	ST	110612	16.8	15.9	17.7	100	2	2
164	110	5	ST	120612	16.2	15.8	16.5	100	2	2
165	110	5	ST	130612	15.2	0.0	16.6	100	2	2
166	110	5	ST	140612	15.7	14.5	16.9	100	2	2
167	110	5	ST	150612	16.2	14.4	18.0	100	2	2
168	110	5	ST	160612	17.0	15.2	18.7	100	2	2
169	110	5	ST	170612	17.9	16.2	19.4	100	2	2
170	110	5	ST	180612	18.4	16.7	19.8	100	2	2
171	110	5	ST	190612	19.1	17.6	20.4	100	2	2
172	110	5	ST	200612	19.5	18.0	21.0	100	2	2
173	110	5	ST	210612	0.4	0.0	20.2	100	2	2
174	110	5	ST	220612	0.0	0.0	0.0	100	2	2
175	110	5	ST	230612	0.0	0.0	0.0	100	2	2
176	110	5	ST	240612	18.6	0.0	20.2	100	2	2
177	110	5	ST	250612	18.3	0.0	19.9	100	2	2
178	110	5	ST	260612	18.0	17.1	19.0	100	2	2
179	110	5	ST	270612	17.6	15.9	19.1	100	2	2
180	110	5	ST	280612	0.4	0.0	17.8	100	2	2
181	110	5	ST	290612	18.9	0.0	20.9	100	2	2
182	110	5	ST	300612	19.8	0.0	21.8	100	2	2
183	110	5	ST	010712	20.6	19.0	22.0	100	2	2
184	110	5	ST	020712	21.0	19.6	22.2	100	2	2
185	110	5	ST	030712	21.2	20.0	22.2	100	2	2
186	110	5	ST	040712	20.5	0.0	22.0	100	2	2
187	110	5	ST	050712	20.0	0.0	22.0	100	2	2
188	110	5	ST	060712	20.3	19.2	21.6	100	2	2
189	110	5	ST	070712	19.8	0.0	22.6	100	2	2
190	110	5	ST	080712	19.7	0.0	21.7	100	2	2
191	110	5	ST	090712	20.2	18.4	21.8	100	2	2
192	110	5	ST	100712	20.2	19.0	22.0	100	2	2
193	110	5	ST	110712	19.8	0.0	21.8	100	2	2
194	110	5	ST	120712	19.6	18.7	20.3	100	2	2
195	110	5	ST	130712	0.4	0.0	19.5	100	2	2
196	110	5	ST	140712	0.0	0.0	0.0	100	2	2
197	110	5	ST	150712	0.0	0.0	0.0	100	2	2
198	110	5	ST	160712	16.7	0.0	18.1	100	2	2
199	110	5	ST	170712	16.8	15.0	18.4	100	2	2
200	110	5	ST	180712	17.1	0.0	19.1	100	2	2
201	110	5	ST	190712	0.4	0.0	17.7	100	2	2
202	110	5	ST	200712	18.6	0.0	20.5	100	2	2
203	110	5	ST	210712	18.3	17.2	19.2	100	2	2
204	110	5	ST	220712	0.4	0.0	17.2	100	2	2
205	110	5	ST	230712	16.2	0.0	17.8	100	2	2
206	110	5	ST	240712	18.1	17.2	19.7	100	2	2
207	110	5	ST	250712	18.4	17.7	19.3	100	2	2
208	110	5	ST	260712	18.8	17.3	20.2	100	2	2
209	110	5	ST	270712	19.2	0.0	21.2	100	2	2
210	110	5	ST	280712	20.2	18.4	21.9	100	2	2
211	110	5	ST	290712	20.4	19.0	21.9	100	2	2

212	110	5	ST	300712	19.8	18.6	20.7	100	2	2
213	110	5	ST	310712	19.2	0.0	20.5	100	2	2
214	110	5	ST	010812	18.7	0.0	20.8	100	2	2
215	110	5	ST	020812	19.4	17.5	21.0	100	2	2
216	110	5	ST	030812	19.8	17.8	21.5	100	2	2
217	110	5	ST	040812	20.0	0.0	22.8	100	2	2
218	110	5	ST	050812	20.7	18.8	22.4	100	2	2
219	110	5	ST	060812	20.5	0.0	22.6	100	2	2
220	110	5	ST	070812	20.0	0.0	21.4	100	2	2
221	110	5	ST	080812	19.8	18.4	21.0	100	2	2
222	110	5	ST	090812	19.1	0.0	20.7	100	2	2
223	110	5	ST	100812	19.1	17.9	20.0	100	2	2
224	110	5	ST	110812	18.5	17.5	19.4	100	2	2
225	110	5	ST	120812	17.1	15.5	18.4	100	2	2
226	110	5	ST	130812	16.8	0.0	18.8	100	2	2
227	110	5	ST	140812	16.9	0.0	19.2	100	2	2
228	110	5	ST	150812	18.0	16.1	19.9	100	2	2
229	110	5	ST	160812	18.8	17.3	20.2	100	2	2
230	110	5	ST	170812	19.0	0.0	20.6	100	2	2
231	110	5	ST	180812	19.1	17.5	20.6	100	2	2
232	110	5	ST	190812	18.6	0.0	20.7	100	2	2
233	110	5	ST	200812	18.6	0.0	21.0	100	2	2
234	110	5	ST	210812	19.2	16.8	21.4	100	2	2
235	110	5	ST	220812	19.5	0.0	22.0	100	2	2
236	110	5	ST	230812	20.4	18.6	22.0	100	2	2
237	110	5	ST	240812	20.7	18.7	22.6	100	2	2
238	110	5	ST	250812	20.5	18.5	22.4	100	2	2
239	110	5	ST	260812	18.6	0.0	20.4	100	2	2
240	110	5	ST	270812	17.7	16.3	19.1	100	2	2
241	110	5	ST	280812	17.1	14.9	19.1	100	2	2
242	110	5	ST	290812	17.7	15.6	19.5	100	2	2
243	110	5	ST	300812	17.9	15.9	19.8	100	2	2
244	110	5	ST	310812	17.5	0.0	18.8	100	2	2
245	110	5	ST	010912	16.6	16.0	17.7	100	2	2
246	110	5	ST	020912	17.1	16.0	18.3	100	2	2
247	110	5	ST	030912	18.0	16.3	19.7	100	2	2
248	110	5	ST	040912	19.1	18.3	20.1	100	2	2
249	110	5	ST	050912	18.7	17.4	19.8	100	2	2
250	110	5	ST	060912	18.5	17.7	19.1	100	2	2
251	110	5	ST	070912	16.7	0.0	18.1	100	2	2
252	110	5	ST	080912	16.3	14.3	18.2	100	2	2
253	110	5	ST	090912	16.8	14.7	18.9	100	2	2
254	110	5	ST	100912	17.4	15.3	19.2	100	2	2
255	110	5	ST	110912	17.8	16.1	19.5	100	2	2
256	110	5	ST	120912	17.7	16.3	18.9	100	2	2
257	110	5	ST	130912	14.2	13.3	17.7	100	2	2
258	110	5	ST	140912	0.3	0.0	13.5	100	2	2
259	110	5	ST	150912	0.0	0.0	0.0	100	2	2
260	110	5	ST	160912	0.0	0.0	0.0	100	2	2

261	110	5	ST	170912	14.1	0.0	16.3	100	2	2
262	110	5	ST	180912	15.3	13.6	17.0	100	2	2
263	110	5	ST	190912	15.5	14.4	16.9	100	2	2
264	110	5	ST	200912	13.9	12.6	14.9	100	2	2
265	110	5	ST	210912	12.5	10.6	14.3	100	2	2
266	110	5	ST	220912	0.3	0.0	12.4	100	2	2
267	110	5	ST	230912	0.0	0.0	0.0	100	2	2
268	110	5	ST	240912	14.8	0.0	16.8	100	2	2
269	110	5	ST	250912	16.1	14.8	17.5	100	2	2
270	110	5	ST	260912	15.7	13.8	17.3	100	2	2
271	110	5	ST	270912	0.3	0.0	16.3	100	2	2
272	110	5	ST	280912	15.6	0.0	16.7	100	2	2
273	110	5	ST	290912	15.8	15.2	16.4	100	2	2
274	110	5	ST	300912	15.9	15.4	16.5	100	2	2
275	110	5	ST	011012	16.3	15.2	17.4	100	2	2
276	110	5	ST	021012	16.4	16.0	16.7	100	2	2
277	110	5	ST	031012	2.3	0.0	15.9	100	2	2
278	110	5	ST	041012	8.5	0.0	17.2	100	2	2
279	110	5	ST	051012	15.4	14.3	16.7	100	2	2
280	110	5	ST	061012	15.1	13.5	16.7	100	2	2
281	110	5	ST	071012	15.3	13.9	16.6	100	2	2
282	110	5	ST	081012	13.7	12.3	15.0	100	2	2
283	110	5	ST	091012	12.4	11.3	13.7	100	2	2
284	110	5	ST	101012	12.4	12.0	13.2	100	2	2
285	110	5	ST	111012	12.2	11.9	12.6	100	2	2
286	110	5	ST	121012	12.7	12.4	13.0	100	2	2
287	110	5	ST	131012	12.9	12.5	13.3	100	2	2
288	110	5	ST	141012	13.1	12.7	13.4	100	2	2
289	110	5	ST	151012	13.2	0.0	14.4	100	2	2
290	110	5	ST	161012	12.9	11.9	13.9	100	2	2
291	110	5	ST	171012	12.2	11.0	13.8	100	2	2
292	110	5	ST	181012	12.9	11.0	14.8	100	2	2
293	110	5	ST	191012	12.6	10.7	14.4	100	2	2
294	110	5	ST	201012	12.2	10.1	13.9	100	2	2
295	110	5	ST	211012	12.2	10.9	13.7	100	2	2
296	110	5	ST	221012	11.7	11.0	12.5	100	2	2
297	110	5	ST	231012	11.5	11.2	11.8	100	2	2
298	110	5	ST	241012	11.8	11.5	12.0	100	2	2
299	110	5	ST	251012	11.9	11.0	12.6	100	2	2
300	110	5	ST	261012	10.6	10.2	11.0	100	2	2
301	110	5	ST	271012	0.2	0.0	11.0	100	2	2
302	110	5	ST	281012	8.7	0.0	11.7	100	2	2
303	110	5	ST	291012	8.1	8.0	8.3	100	2	2
304	110	5	ST	301012	8.0	7.3	8.8	100	2	2
305	110	5	ST	311012	7.9	6.9	8.9	100	2	2
306	110	5	ST	011112	8.8	8.5	9.2	100	2	2
307	110	5	ST	021112	9.0	8.3	9.9	100	2	2
308	110	5	ST	031112	8.8	8.2	9.4	100	2	2
309	110	5	ST	041112	9.8	8.7	10.9	100	2	2

310	110	5	ST	051112	11.0	0.0	12.8	100	2	2
311	110	5	ST	061112	10.2	10.0	10.6	100	2	2
312	110	5	ST	071112	9.8	9.2	10.6	100	2	2
313	110	5	ST	081112	9.3	8.3	10.4	100	2	2
314	110	5	ST	091112	9.2	8.3	10.5	100	2	2
315	110	5	ST	101112	8.6	7.8	9.5	100	2	2
316	110	5	ST	111112	8.8	7.9	9.7	100	2	2
317	110	5	ST	121112	10.2	9.4	10.8	100	2	2
318	110	5	ST	131112	10.6	10.4	11.0	100	2	2
319	110	5	ST	141112	10.0	9.7	10.5	100	2	2
320	110	5	ST	151112	9.4	9.1	9.7	100	2	2
321	110	5	ST	161112	9.4	9.2	9.7	100	2	2
322	110	5	ST	171112	9.6	9.2	10.0	100	2	2
323	110	5	ST	181112	10.0	9.7	10.3	100	2	2
324	110	5	ST	191112	9.9	0.0	10.3	100	2	2
325	110	5	ST	201112	10.0	9.8	10.1	100	2	2
326	110	5	ST	211112	9.8	9.7	10.0	100	2	2
327	110	5	ST	221112	10.1	9.8	10.4	100	2	2
328	110	5	ST	231112	10.3	10.1	10.5	100	2	2
329	110	5	ST	241112	10.2	9.5	10.8	100	2	2
330	110	5	ST	251112	9.3	8.9	9.9	100	2	2
331	110	5	ST	261112	9.4	0.0	10.6	100	2	2
332	110	5	ST	271112	10.1	9.5	10.9	100	2	2
333	110	5	ST	281112	10.5	10.0	11.2	100	2	2
334	110	5	ST	291112	10.2	9.7	10.6	100	2	2
335	110	5	ST	301112	7.4	6.7	9.6	100	2	2
336	110	5	ST	011212	6.6	6.3	6.9	100	2	2
337	110	5	ST	021212	6.1	5.5	6.5	100	2	2
338	110	5	ST	031212	5.4	4.8	6.3	100	2	2
339	110	5	ST	041212	4.6	4.0	5.2	100	2	2
340	110	5	ST	051212	4.1	3.7	5.0	100	2	2
341	110	5	ST	061212	3.9	3.6	4.1	100	2	2
342	110	5	ST	071212	3.8	3.3	4.2	100	2	2
343	110	5	ST	081212	2.9	2.1	3.6	100	2	2
344	110	5	ST	091212	2.1	1.7	2.4	100	2	2
345	110	5	ST	101212	1.6	0.0	1.9	100	2	2
346	110	5	ST	111212	1.7	1.6	1.9	100	2	2
347	110	5	ST	121212	1.7	1.5	2.0	100	2	2
348	110	5	ST	131212	1.6	1.3	1.8	100	2	2
349	110	5	ST	141212	1.8	1.6	2.1	100	2	2
350	110	5	ST	151212	1.7	1.6	1.9	100	2	2
351	110	5	ST	161212	1.9	1.7	2.2	100	2	2
352	110	5	ST	171212	2.1	0.0	2.4	100	2	2
353	110	5	ST	181212	2.6	2.2	2.9	100	2	2
354	110	5	ST	191212	3.1	2.5	3.7	100	2	2
355	110	5	ST	201212	3.2	2.7	3.9	100	2	2
356	110	5	ST	211212	2.6	2.3	2.9	100	2	2
357	110	5	ST	221212	2.7	2.5	3.1	100	2	2
358	110	5	ST	231212	3.0	2.8	3.3	100	2	2

359	110	5	ST	241212	3.3	2.4	4.3	100	2	2
360	110	5	ST	251212	5.7	4.3	6.5	100	2	2
361	110	5	ST	261212	6.5	6.3	6.9	100	2	2
362	110	5	ST	271212	5.2	4.6	6.3	100	2	2
363	110	5	ST	281212	5.1	4.4	5.9	100	2	2
364	110	5	ST	291212	3.3	2.7	4.3	100	2	2
365	110	5	ST	301212	2.1	1.8	2.6	100	2	2
366	110	5	ST	311212	1.6	0.0	2.1	100	2	2
367	110	6	WC	010112	0.39	0.00	0.40	98	2	2
368	110	6	WC	020112	0.39	0.00	0.40	98	2	2
369	110	6	WC	030112	0.41	0.40	0.42	100	2	2
370	110	6	WC	040112	0.40	0.00	0.41	98	2	2
371	110	6	WC	050112	0.41	0.41	0.41	100	2	2
372	110	6	WC	060112	0.40	0.00	0.41	98	2	2
373	110	6	WC	070112	0.39	0.00	0.40	98	2	2
374	110	6	WC	080112	0.39	0.00	0.40	98	2	2
375	110	6	WC	090112	0.38	0.00	0.40	96	2	2
376	110	6	WC	100112	0.39	0.00	0.40	98	2	2
377	110	6	WC	110112	0.38	0.00	0.39	98	2	2
378	110	6	WC	120112	0.39	0.39	0.39	100	2	2
379	110	6	WC	130112	0.38	0.00	0.39	98	2	2
380	110	6	WC	140112	0.36	0.00	0.39	94	2	9
381	110	6	WC	150112	0.38	0.38	0.39	100	2	2
382	110	6	WC	160112	0.37	0.00	0.38	98	2	2
383	110	6	WC	170112	0.35	0.00	0.38	94	2	9
384	110	6	WC	180112	0.38	0.38	0.38	100	2	2
385	110	6	WC	190112	0.36	0.00	0.38	96	2	2
386	110	6	WC	200112	0.39	0.38	0.40	100	2	2
387	110	6	WC	210112	0.37	0.00	0.39	96	2	2
388	110	6	WC	220112	0.39	0.39	0.39	100	2	2
389	110	6	WC	230112	0.39	0.39	0.39	100	2	2
390	110	6	WC	240112	0.41	0.00	0.43	98	2	2
391	110	6	WC	250112	0.43	0.42	0.43	100	2	2
392	110	6	WC	260112	0.41	0.00	0.43	98	2	2
393	110	6	WC	270112	0.40	0.00	0.42	100	2	2
394	110	6	WC	280112	0.40	0.00	0.41	98	2	2
395	110	6	WC	290112	0.40	0.40	0.40	100	2	2
396	110	6	WC	300112	0.03	0.00	0.40	98	2	2
397	110	6	WC	310112	0.37	0.00	0.40	100	2	2
398	110	6	WC	010212	0.40	0.39	0.40	100	2	2
399	110	6	WC	020212	0.39	0.39	0.39	100	2	2
400	110	6	WC	030212	0.38	0.00	0.39	98	2	2
401	110	6	WC	040212	0.38	0.00	0.39	98	2	2
402	110	6	WC	050212	0.38	0.00	0.39	98	2	2
403	110	6	WC	060212	0.39	0.39	0.39	100	2	2
404	110	6	WC	070212	0.37	0.00	0.39	96	2	2
405	110	6	WC	080212	0.38	0.00	0.39	98	2	2
406	110	6	WC	090212	0.38	0.00	0.39	98	2	2
407	110	6	WC	100212	0.38	0.38	0.39	100	2	2

408	110	6	WC	110212	0.37	0.00	0.39	96	2	2
409	110	6	WC	120212	0.38	0.38	0.38	100	2	2
410	110	6	WC	130212	0.37	0.00	0.38	98	2	2
411	110	6	WC	140212	0.38	0.38	0.38	100	2	2
412	110	6	WC	150212	0.38	0.00	0.38	98	2	2
413	110	6	WC	160212	0.38	0.00	0.38	98	2	2
414	110	6	WC	170212	0.38	0.00	0.39	98	2	2
415	110	6	WC	180212	0.38	0.00	0.39	98	2	2
416	110	6	WC	190212	0.40	0.40	0.41	100	2	2
417	110	6	WC	200212	0.42	0.00	0.43	98	2	2
418	110	6	WC	210212	0.43	0.43	0.43	100	2	2
419	110	6	WC	220212	0.43	0.43	0.43	100	2	2
420	110	6	WC	230212	0.40	0.00	0.43	94	2	9
421	110	6	WC	240212	0.45	0.43	0.46	100	2	2
422	110	6	WC	250212	0.48	0.46	0.50	100	2	2
423	110	6	WC	260212	0.49	0.00	0.51	98	2	2
424	110	6	WC	270212	0.51	0.51	0.51	100	2	2
425	110	6	WC	280212	0.49	0.00	0.51	96	2	2
426	110	6	WC	290212	0.50	0.00	0.51	98	2	2
427	110	6	WC	010312	0.50	0.50	0.50	100	2	2
428	110	6	WC	020312	0.48	0.00	0.50	96	2	2
429	110	6	WC	030312	0.49	0.49	0.50	100	2	2
430	110	6	WC	040312	0.47	0.00	0.49	100	2	2
431	110	6	WC	050312	0.48	0.47	0.48	98	2	2
432	110	6	WC	060312	0.45	0.00	0.48	96	2	2
433	110	6	WC	070312	0.46	0.46	0.47	100	2	2
434	110	6	WC	080312	0.45	0.00	0.46	98	2	2
435	110	6	WC	090312	0.45	0.00	0.46	98	2	2
436	110	6	WC	100312	0.46	0.45	0.46	100	2	2
437	110	6	WC	110312	0.46	0.45	0.46	100	2	2
438	110	6	WC	120312	0.44	0.00	0.46	96	2	2
439	110	6	WC	130312	0.45	0.00	0.46	98	2	2
440	110	6	WC	140312	0.46	0.45	0.46	100	2	2
441	110	6	WC	150312	0.45	0.00	0.46	98	2	2
442	110	6	WC	160312	0.43	0.00	0.46	96	2	2
443	110	6	WC	170312	0.44	0.00	0.46	98	2	2
444	110	6	WC	180312	0.44	0.00	0.46	98	2	2
445	110	6	WC	190312	0.43	0.00	0.46	94	2	9
446	110	6	WC	200312	0.44	0.00	0.46	96	2	2
447	110	6	WC	210312	0.45	0.45	0.46	100	2	2
448	110	6	WC	220312	0.43	0.00	0.45	96	2	2
449	110	6	WC	230312	0.45	0.44	0.45	100	2	2
450	110	6	WC	240312	0.45	0.44	0.45	100	2	2
451	110	6	WC	250312	0.45	0.45	0.45	100	2	2
452	110	6	WC	260312	0.45	0.44	0.45	100	2	2
453	110	6	WC	270312	0.44	0.44	0.45	100	2	2
454	110	6	WC	280312	0.42	0.00	0.45	96	2	2
455	110	6	WC	290312	0.44	0.44	0.45	100	2	2
456	110	6	WC	300312	0.43	0.00	0.45	98	2	2

457	110	6	WC	310312	0.44	0.44	0.45	100	2	2
458	110	6	WC	010412	0.42	0.00	0.44	96	2	2
459	110	6	WC	020412	0.44	0.43	0.44	100	2	2
460	110	6	WC	030412	0.41	0.00	0.44	94	2	9
461	110	6	WC	040412	0.41	0.00	0.44	94	2	9
462	110	6	WC	050412	0.45	0.44	0.48	100	2	2
463	110	6	WC	060412	0.47	0.00	0.49	98	2	2
464	110	6	WC	070412	0.47	0.00	0.48	98	2	2
465	110	6	WC	080412	0.48	0.00	0.49	98	2	2
466	110	6	WC	090412	0.48	0.47	0.48	100	2	2
467	110	6	WC	100412	0.47	0.47	0.48	100	2	2
468	110	6	WC	110412	0.48	0.47	0.51	100	2	2
469	110	6	WC	120412	0.51	0.50	0.51	100	2	2
470	110	6	WC	130412	0.47	0.00	0.50	96	2	2
471	110	6	WC	140412	0.48	0.00	0.50	98	2	2
472	110	6	WC	150412	0.08	0.00	0.49	98	2	2
473	110	6	WC	160412	0.47	0.00	0.50	98	2	2
474	110	6	WC	170412	0.48	0.00	0.49	98	2	2
475	110	6	WC	180412	0.48	0.48	0.49	100	2	2
476	110	6	WC	190412	0.47	0.00	0.49	98	2	2
477	110	6	WC	200412	0.47	0.00	0.48	98	2	2
478	110	6	WC	210412	0.48	0.48	0.48	100	2	2
479	110	6	WC	220412	0.47	0.47	0.48	100	2	2
480	110	6	WC	230412	0.47	0.47	0.47	100	2	2
481	110	6	WC	240412	0.46	0.00	0.47	98	2	2
482	110	6	WC	250412	0.44	0.00	0.47	94	2	9
483	110	6	WC	260412	0.47	0.47	0.47	100	2	2
484	110	6	WC	270412	0.46	0.00	0.47	98	2	2
485	110	6	WC	280412	0.46	0.00	0.47	98	2	2
486	110	6	WC	290412	0.47	0.47	0.47	100	2	2
487	110	6	WC	300412	0.46	0.00	0.47	98	2	2
488	110	6	WC	010512	0.44	0.00	0.47	96	2	2
489	110	6	WC	020512	0.46	0.46	0.46	100	2	2
490	110	6	WC	030512	0.46	0.45	0.46	100	2	2
491	110	6	WC	040512	0.44	0.00	0.45	98	2	2
492	110	6	WC	050512	0.44	0.44	0.45	100	2	2
493	110	6	WC	060512	0.44	0.44	0.44	100	2	2
494	110	6	WC	070512	0.47	0.43	0.49	100	2	2
495	110	6	WC	080512	0.46	0.00	0.48	96	2	2
496	110	6	WC	090512	0.46	0.00	0.48	98	2	2
497	110	6	WC	100512	0.47	0.46	0.47	100	2	2
498	110	6	WC	110512	0.45	0.00	0.46	98	2	2
499	110	6	WC	120512	0.45	0.45	0.46	100	2	2
500	110	6	WC	130512	0.45	0.00	0.48	96	2	2
501	110	6	WC	140512	0.48	0.47	0.48	100	2	2
502	110	6	WC	150512	0.47	0.46	0.47	100	2	2
503	110	6	WC	160512	0.01	0.00	0.46	94	2	9
504	110	6	WC	170512	0.45	0.00	0.47	98	2	2
505	110	6	WC	180512	0.44	0.00	0.47	96	2	2

506	110	6	WC	190512	0.46	0.45	0.46	100	2	2
507	110	6	WC	200512	0.45	0.45	0.45	100	2	2
508	110	6	WC	210512	0.45	0.45	0.46	100	2	2
509	110	6	WC	220512	0.46	0.00	0.47	96	2	2
510	110	6	WC	230512	0.45	0.00	0.50	96	2	2
511	110	6	WC	240512	0.48	0.00	0.50	98	2	2
512	110	6	WC	250512	0.48	0.48	0.49	100	2	2
513	110	6	WC	260512	0.46	0.00	0.48	98	2	2
514	110	6	WC	270512	0.46	0.46	0.47	100	2	2
515	110	6	WC	280512	0.45	0.45	0.46	100	2	2
516	110	6	WC	290512	0.43	0.00	0.45	96	2	2
517	110	6	WC	300512	0.43	0.00	0.44	98	2	2
518	110	6	WC	310512	0.31	0.00	0.43	98	2	2
519	110	6	WC	010612	0.43	0.00	0.50	98	2	2
520	110	6	WC	020612	0.52	0.51	0.52	100	2	2
521	110	6	WC	030612	0.50	0.49	0.51	100	2	2
522	110	6	WC	040612	0.44	0.00	0.49	92	2	9
523	110	6	WC	050612	0.46	0.00	0.48	96	2	2
524	110	6	WC	060612	0.44	0.00	0.47	94	2	9
525	110	6	WC	070612	0.46	0.45	0.46	100	2	2
526	110	6	WC	080612	0.45	0.44	0.45	100	2	2
527	110	6	WC	090612	0.41	0.00	0.44	94	2	9
528	110	6	WC	100612	0.43	0.43	0.44	100	2	2
529	110	6	WC	110612	0.42	0.00	0.43	98	2	2
530	110	6	WC	120612	0.44	0.43	0.45	100	2	2
531	110	6	WC	130612	0.42	0.00	0.45	96	2	2
532	110	6	WC	140612	0.43	0.00	0.44	98	2	2
533	110	6	WC	150612	0.43	0.42	0.43	100	2	2
534	110	6	WC	160612	0.42	0.42	0.42	100	2	2
535	110	6	WC	170612	0.41	0.41	0.42	100	2	2
536	110	6	WC	180612	0.40	0.40	0.41	100	2	2
537	110	6	WC	190612	0.39	0.39	0.40	100	2	2
538	110	6	WC	200612	0.37	0.00	0.39	98	2	2
539	110	6	WC	210612	0.01	0.00	0.38	96	2	2
540	110	6	WC	220612	0.00	0.00	0.00	98	2	2
541	110	6	WC	230612	0.00	0.00	0.00	100	2	2
542	110	6	WC	240612	0.32	0.00	0.34	98	2	2
543	110	6	WC	250612	0.32	0.00	0.34	98	2	2
544	110	6	WC	260612	0.32	0.00	0.33	98	2	2
545	110	6	WC	270612	0.32	0.32	0.32	100	2	2
546	110	6	WC	280612	0.01	0.00	0.32	98	2	2
547	110	6	WC	290612	0.30	0.00	0.31	100	2	2
548	110	6	WC	300612	0.29	0.00	0.30	96	2	2
549	110	6	WC	010712	0.30	0.29	0.30	100	2	2
550	110	6	WC	020712	0.29	0.29	0.29	100	2	2
551	110	6	WC	030712	0.29	0.29	0.29	100	2	2
552	110	6	WC	040712	0.28	0.00	0.29	98	2	2
553	110	6	WC	050712	0.27	0.00	0.28	96	2	2
554	110	6	WC	060712	0.28	0.28	0.28	100	2	2

555	110	6	WC	070712	0.25	0.00	0.28	94	2	9
556	110	6	WC	080712	0.26	0.00	0.27	98	2	2
557	110	6	WC	090712	0.27	0.27	0.27	100	2	2
558	110	6	WC	100712	0.25	0.00	0.27	96	2	2
559	110	6	WC	110712	0.26	0.00	0.26	98	2	2
560	110	6	WC	120712	0.27	0.00	0.29	98	2	2
561	110	6	WC	130712	0.01	0.00	0.27	98	2	2
562	110	6	WC	140712	0.00	0.00	0.00	94	2	9
563	110	6	WC	150712	0.00	0.00	0.00	100	2	2
564	110	6	WC	160712	0.25	0.00	0.26	98	2	2
565	110	6	WC	170712	0.25	0.00	0.26	98	2	2
566	110	6	WC	180712	0.24	0.00	0.25	96	2	2
567	110	6	WC	190712	0.01	0.00	0.25	100	2	2
568	110	6	WC	200712	0.25	0.00	0.25	100	2	2
569	110	6	WC	210712	0.23	0.00	0.25	94	2	9
570	110	6	WC	220712	0.01	0.00	0.25	98	2	2
571	110	6	WC	230712	0.25	0.25	0.25	98	2	2
572	110	6	WC	240712	0.24	0.00	0.25	98	2	2
573	110	6	WC	250712	0.26	0.25	0.26	100	2	2
574	110	6	WC	260712	0.25	0.00	0.26	98	2	2
575	110	6	WC	270712	0.24	0.00	0.26	96	2	2
576	110	6	WC	280712	0.25	0.00	0.25	98	2	2
577	110	6	WC	290712	0.24	0.00	0.25	98	2	2
578	110	6	WC	300712	0.25	0.25	0.25	100	2	2
579	110	6	WC	310712	0.24	0.00	0.25	98	2	2
580	110	6	WC	010812	0.23	0.00	0.25	96	2	2
581	110	6	WC	020812	0.23	0.00	0.24	96	2	2
582	110	6	WC	030812	0.24	0.00	0.24	98	2	2
583	110	6	WC	040812	0.23	0.00	0.24	96	2	2
584	110	6	WC	050812	0.24	0.00	0.24	98	2	2
585	110	6	WC	060812	0.23	0.00	0.24	96	2	2
586	110	6	WC	070812	0.23	0.00	0.24	96	2	2
587	110	6	WC	080812	0.24	0.24	0.24	100	2	2
588	110	6	WC	090812	0.23	0.00	0.24	98	2	2
589	110	6	WC	100812	0.23	0.00	0.24	98	2	2
590	110	6	WC	110812	0.23	0.23	0.23	100	2	2
591	110	6	WC	120812	0.23	0.00	0.23	98	2	2
592	110	6	WC	130812	0.22	0.00	0.23	98	2	2
593	110	6	WC	140812	0.21	0.00	0.23	94	2	9
594	110	6	WC	150812	0.23	0.23	0.23	100	2	2
595	110	6	WC	160812	0.22	0.00	0.23	98	2	2
596	110	6	WC	170812	0.22	0.00	0.23	96	2	2
597	110	6	WC	180812	0.22	0.00	0.23	98	2	2
598	110	6	WC	190812	0.22	0.00	0.23	96	2	2
599	110	6	WC	200812	0.22	0.00	0.23	96	2	2
600	110	6	WC	210812	0.22	0.00	0.23	98	2	2
601	110	6	WC	220812	0.21	0.00	0.23	94	2	9
602	110	6	WC	230812	0.23	0.23	0.23	100	2	2
603	110	6	WC	240812	0.22	0.00	0.23	96	2	2

604	110	6	WC	250812	0.23	0.23	0.23	100	2	2
605	110	6	WC	260812	0.23	0.00	0.27	98	2	2
606	110	6	WC	270812	0.24	0.23	0.25	100	2	2
607	110	6	WC	280812	0.23	0.00	0.23	98	2	2
608	110	6	WC	290812	0.23	0.23	0.23	100	2	2
609	110	6	WC	300812	0.22	0.22	0.23	100	2	2
610	110	6	WC	310812	0.22	0.00	0.22	100	2	2
611	110	6	WC	010912	0.29	0.22	0.40	100	2	2
612	110	6	WC	020912	0.38	0.37	0.39	100	2	2
613	110	6	WC	030912	0.36	0.36	0.37	96	2	2
614	110	6	WC	040912	0.35	0.34	0.36	100	2	2
615	110	6	WC	050912	0.34	0.33	0.34	100	2	2
616	110	6	WC	060912	0.38	0.33	0.39	96	2	2
617	110	6	WC	070912	0.37	0.36	0.38	98	2	2
618	110	6	WC	080912	0.35	0.34	0.36	100	2	2
619	110	6	WC	090912	0.34	0.33	0.34	98	2	2
620	110	6	WC	100912	0.32	0.32	0.33	100	2	2
621	110	6	WC	110912	0.31	0.31	0.32	100	2	2
622	110	6	WC	120912	0.30	0.30	0.34	100	2	2
623	110	6	WC	130912	0.45	0.39	0.47	98	2	2
624	110	6	WC	140912	0.01	0.00	0.46	100	2	2
625	110	6	WC	150912	0.00	0.00	0.00	96	2	2
626	110	6	WC	160912	0.00	0.00	0.00	100	2	2
627	110	6	WC	170912	0.41	0.00	0.43	98	2	2
628	110	6	WC	180912	0.41	0.41	0.42	100	2	2
629	110	6	WC	190912	0.41	0.40	0.46	100	2	2
630	110	6	WC	200912	0.47	0.45	0.48	100	2	2
631	110	6	WC	210912	0.44	0.44	0.45	100	2	2
632	110	6	WC	220912	0.01	0.00	0.44	98	2	2
633	110	6	WC	230912	0.00	0.00	0.00	100	2	2
634	110	6	WC	240912	0.41	0.00	0.42	100	2	2
635	110	6	WC	250912	0.42	0.41	0.42	98	2	2
636	110	6	WC	260912	0.41	0.40	0.41	100	2	2
637	110	6	WC	270912	0.01	0.00	0.40	98	2	2
638	110	6	WC	280912	0.40	0.00	0.41	98	2	2
639	110	6	WC	290912	0.40	0.40	0.40	100	2	2
640	110	6	WC	300912	0.40	0.39	0.40	100	2	2
641	110	6	WC	011012	0.39	0.39	0.39	100	2	2
642	110	6	WC	021012	0.39	0.39	0.39	100	2	2
643	110	6	WC	031012	0.06	0.00	0.39	100	2	2
644	110	6	WC	041012	0.19	0.00	0.38	98	2	2
645	110	6	WC	051012	0.37	0.36	0.37	100	2	2
646	110	6	WC	061012	0.36	0.35	0.36	100	2	2
647	110	6	WC	071012	0.35	0.34	0.35	100	2	2
648	110	6	WC	081012	0.34	0.33	0.34	100	2	2
649	110	6	WC	091012	0.33	0.32	0.33	100	2	2
650	110	6	WC	101012	0.33	0.32	0.38	94	2	9
651	110	6	WC	111012	0.37	0.37	0.38	100	2	2
652	110	6	WC	121012	0.36	0.36	0.37	98	2	2

653	110	6	WC	131012	0.39	0.36	0.42	100	2	2
654	110	6	WC	141012	0.39	0.39	0.40	96	2	2
655	110	6	WC	151012	0.37	0.00	0.39	98	2	2
656	110	6	WC	161012	0.44	0.00	0.48	96	2	2
657	110	6	WC	171012	0.46	0.00	0.47	98	2	2
658	110	6	WC	181012	0.45	0.00	0.46	98	2	2
659	110	6	WC	191012	0.45	0.44	0.45	100	2	2
660	110	6	WC	201012	0.42	0.00	0.44	96	2	2
661	110	6	WC	211012	0.43	0.43	0.43	100	2	2
662	110	6	WC	221012	0.43	0.43	0.43	100	2	2
663	110	6	WC	231012	0.42	0.42	0.43	100	2	2
664	110	6	WC	241012	0.42	0.42	0.42	100	2	2
665	110	6	WC	251012	0.42	0.42	0.42	100	2	2
666	110	6	WC	261012	0.42	0.42	0.42	100	2	2
667	110	6	WC	271012	0.01	0.00	0.42	98	2	2
668	110	6	WC	281012	0.50	0.00	0.53	98	2	2
669	110	6	WC	291012	0.54	0.53	0.55	100	2	2
670	110	6	WC	301012	0.52	0.00	0.55	96	2	2
671	110	6	WC	311012	0.52	0.00	0.54	98	2	2
672	110	6	WC	011112	0.55	0.53	0.56	100	2	2
673	110	6	WC	021112	0.55	0.00	0.57	98	2	2
674	110	6	WC	031112	0.55	0.00	0.56	98	2	2
675	110	6	WC	041112	0.54	0.00	0.56	98	2	2
676	110	6	WC	051112	0.55	0.00	0.58	100	2	2
677	110	6	WC	061112	0.56	0.00	0.58	98	2	2
678	110	6	WC	071112	0.56	0.00	0.57	98	2	2
679	110	6	WC	081112	0.53	0.00	0.56	94	2	9
680	110	6	WC	091112	0.53	0.00	0.56	96	2	2
681	110	6	WC	101112	0.52	0.00	0.54	98	2	2
682	110	6	WC	111112	0.52	0.52	0.53	100	2	2
683	110	6	WC	121112	0.54	0.00	0.58	96	2	2
684	110	6	WC	131112	0.59	0.59	0.59	100	2	2
685	110	6	WC	141112	0.58	0.58	0.59	100	2	2
686	110	6	WC	151112	0.54	0.00	0.58	94	2	9
687	110	6	WC	161112	0.56	0.00	0.57	98	2	2
688	110	6	WC	171112	0.57	0.56	0.57	100	2	2
689	110	6	WC	181112	0.56	0.56	0.57	100	2	2
690	110	6	WC	191112	0.54	0.00	0.56	98	2	2
691	110	6	WC	201112	0.55	0.00	0.56	98	2	2
692	110	6	WC	211112	0.53	0.00	0.56	96	2	2
693	110	6	WC	221112	0.53	0.00	0.55	98	2	2
694	110	6	WC	231112	0.54	0.54	0.54	100	2	2
695	110	6	WC	241112	0.53	0.53	0.54	100	2	2
696	110	6	WC	251112	0.53	0.52	0.53	100	2	2
697	110	6	WC	261112	0.49	0.00	0.53	96	2	2
698	110	6	WC	271112	0.50	0.00	0.53	96	2	2
699	110	6	WC	281112	0.53	0.52	0.56	100	2	2
700	110	6	WC	291112	0.56	0.00	0.59	96	2	2
701	110	6	WC	301112	0.57	0.00	0.59	98	2	2

702	110	6	WC	011212	0.58	0.58	0.58	100	2	2
703	110	6	WC	021212	0.57	0.00	0.58	98	2	2
704	110	6	WC	031212	0.58	0.57	0.58	100	2	2
705	110	6	WC	041212	0.56	0.00	0.57	98	2	2
706	110	6	WC	051212	0.56	0.00	0.57	98	2	2
707	110	6	WC	061212	0.56	0.00	0.57	98	2	2
708	110	6	WC	071212	0.54	0.00	0.57	96	2	2
709	110	6	WC	081212	0.54	0.00	0.57	96	2	2
710	110	6	WC	091212	0.54	0.00	0.56	96	2	2
711	110	6	WC	101212	0.55	0.00	0.56	100	2	2
712	110	6	WC	111212	0.54	0.00	0.56	96	2	2
713	110	6	WC	121212	0.56	0.56	0.56	100	2	2
714	110	6	WC	131212	0.55	0.00	0.56	98	2	2
715	110	6	WC	141212	0.56	0.56	0.56	100	2	2
716	110	6	WC	151212	0.56	0.56	0.56	100	2	2
717	110	6	WC	161212	0.56	0.56	0.56	100	2	2
718	110	6	WC	171212	0.54	0.00	0.56	98	2	2
719	110	6	WC	181212	0.56	0.56	0.56	100	2	2
720	110	6	WC	191212	0.57	0.56	0.57	100	2	2
721	110	6	WC	201212	0.57	0.56	0.57	100	2	2
722	110	6	WC	211212	0.53	0.00	0.56	94	2	9
723	110	6	WC	221212	0.56	0.56	0.57	100	2	2
724	110	6	WC	231212	0.55	0.00	0.57	98	2	2
725	110	6	WC	241212	0.57	0.56	0.57	100	2	2
726	110	6	WC	251212	0.56	0.00	0.57	98	2	2
727	110	6	WC	261212	0.57	0.57	0.58	100	2	2
728	110	6	WC	271212	0.56	0.00	0.58	98	2	2
729	110	6	WC	281212	0.56	0.00	0.58	98	2	2
730	110	6	WC	291212	0.56	0.00	0.57	98	2	2
731	110	6	WC	301212	0.54	0.00	0.57	96	2	2
732	110	6	WC	311212	0.55	0.00	0.56	100	2	2

4. Literatura

1. PCC (Ur.), 1988: Manual on methods and criteria for harmonized sampling, assesment, monitoring and analysis of the effects of air pollution on forests. UN/ECE and EC, Geneva and Brussels, PCC Hamburg.

2. Pravilnik o načinu motrenja oštećenosti šumskih ekosustava, Narodne novine 67/2010.

5. Prilozi

Prilog 1. Obrazac A1

Prilog 2. Obrazac A2

Prilog 3. Obrazac B1

Prilog 4. Obrazac B2

Prilog.5. Obrazac C

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**

CONIFERS

form A1

Classification		Percentage of trees defoliated														
		trees up to 59 years old							trees 60 years and older							
		1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:		100	118	125	129		others	Total	100	118	125	129		others	Total	Grand total
area of species:																
no. of sample trees:		0	0	119	68	0	3	190	109	22	41	0	0	7	179	369
defoliation class	percentage of leaf loss	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not defoliated	0 - 10%	0	0	43,7	13,24	0	66,67	33,16	11,01	50	4,88	0	0	0	13,97	23,85
1 : slightly defoliated	>10 - 25%	0	0	16,81	16,18	0	33,33	16,84	21,1	18,18	43,9	0	0	28,57	26,26	21,41
2 : moderately defoliated	> 25 - 60%	0	0	36,13	60,29	0	0	44,21	52,29	31,82	41,46	0	0	57,14	47,49	45,8
3 : severely defoliated	> 60% - 100%	0	0	3,36	10,29	0	0	5,79	14,68	0	9,76	0	0	14,29	11,73	8,67
4 : dead	100%	0	0	0	0	0	0	0	0,92	0	0	0	0	0	0,56	0,27
Total		0	0	100	100	0	100	100	100	100	100	0	0	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**
CONIFERS
form A2

Classification		Percentage of trees discoloured (yellowed)														
		trees up to 59 years old							trees 60 years and older							
		1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:		100	118	125	129		others	Total	100	118	125	129		others	Total	Grand total
area of species:																
no. of sample trees:		0	0	119	68	0	3	190	109	22	41	0	0	7	179	369
discolouration class	percentage of disc.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not discoloured	0 - 10%	0	0	61,34	100	0	66,67	75,26	77,98	81,82	100	0	0	100	84,36	79,67
1 : slightly discoloured	>10 - 25%	0	0	34,45	0	0	33,33	22,11	16,51	18,18	0	0	0	0	12,29	17,34
2 : moderately discoloured	> 25 - 60%	0	0	4,2	0	0	0	2,63	2,75	0	0	0	0	0	1,68	2,17
3 : severely discoloured	> 60% - 100%	0	0	0	0	0	0	0	1,83	0	0	0	0	0	1,12	0,54
4 : dead	100%	0	0	0	0	0	0	0	0,92	0	0	0	0	0	0,56	0,27
Total		0	0	100	100	0	100	100	100	100	100	0	0	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**

CONIFERS

form A3

Classification	Percentage of trees damaged (defoliation and yellowing combined)														
	trees up to 59 years old							trees 60 years and older							
	1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:	100	118	125	129		others	Total	100	118	125	129		others	Total	Grand total
area of species:															
no. of sample trees:	0	0	119	68	0	3	190	109	22	41	0	0	7	179	369
combined damage class	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not damaged	0	0	43,7	13,24	0	66,67	33,16	11,01	50	4,88	0	0	0	13,97	23,85
1 : slightly damaged	0	0	16,81	16,18	0	33,33	16,84	21,1	18,18	43,9	0	0	28,57	26,26	21,41
2 : moderately damaged	0	0	34,45	60,29	0	0	43,16	52,29	31,82	41,46	0	0	57,14	47,49	45,26
3 : severely damaged	0	0	5,04	10,29	0	0	6,84	14,68	0	9,76	0	0	14,29	11,73	9,21
4 : dead	0	0	0	0	0	0	0	0,92	0	0	0	0	0	0,56	0,27
Total	0	0	100	100	0	100	100	100	100	100	0	0	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**

BROADLEAVES

form B1

Classification		Percentage of trees defoliated														
		trees up to 59 years old							trees 60 years and older							
		1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:		020	046	048	049	051	others	Total	020	046	048	049	051	others	Total	Grand total
area of species:																
no. of sample trees:		207	87	45	143	191	265	938	399	0	135	32	298	229	1093	2031
defoliation class	percentage of leaf loss	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not defoliated	0 - 10%	44,44	45,98	20	27,27	86,91	49,81	50,96	38,85	0	16,3	3,13	12,75	42,36	28,64	38,95
1 : slightly defoliated	>10 - 25%	45,41	24,14	37,78	31,47	6,81	32,08	29,32	45,61	0	46,67	21,88	45,64	41,92	44,28	37,37
2 : moderately defoliated	> 25 - 60%	8,21	24,14	42,22	39,16	6,28	15,85	17,8	14,04	0	34,07	68,75	37,92	13,97	24,61	21,47
3 : severely defoliated	> 60% - 100%	0,97	4,6	0	2,1	0	1,51	1,39	1,25	0	1,48	6,25	2,01	1,31	1,65	1,53
4 : dead	100%	0,97	1,15	0	0	0	0,75	0,53	0,25	0	1,48	0	1,68	0,44	0,82	0,69
Total		100	100	100	100	100	100	100	100	0	100	100	100	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**

BROADLEAVES

form B2

Classification		Percentage of trees discoloured (yellowed)														
		trees up to 59 years old							trees 60 years and older							
		1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:		020	046	048	049	051	others	Total	020	046	048	049	051	others	Total	Grand total
area of species:																
no. of sample trees:		207	87	45	143	191	265	938	399	0	135	32	298	229	1093	2031
discolouration class	percentage of disc.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not discoloured	0 - 10%	96,14	98,85	97,78	90,21	100	95,09	96,06	95,74	0	82,96	100	89,93	93,01	92,13	93,94
1 : slightly discoloured	>10 - 25%	2,42	0	2,22	9,09	0	3,77	3,09	3,51	0	10,37	0	8,05	4,8	5,76	4,53
2 : moderately discoloured	> 25 - 60%	0,48	0	0	0,7	0	0,38	0,32	0,5	0	4,44	0	0	1,75	1,1	0,74
3 : severely discoloured	> 60% - 100%	0	0	0	0	0	0	0	0	0	0,74	0	0,34	0	0,18	0,1
4 : dead	100%	0,97	1,15	0	0	0	0,75	0,53	0,25	0	1,48	0	1,68	0,44	0,82	0,69
Total		100	100	100	100	100	100	100	100	0	100	100	100	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Country (region): 57 total area of country (1000 ha): total forest area (1000 ha): forest area surveyed (1000 ha):

Institution (National Focal Centre): total coniferous area (1000 ha):
total broadleaved area (1000 ha):

Survey period: day/month - day/month/year
(from - to)

SURVEY **2012**

BROADLEAVES

form B3

Classification	**Percentage of trees damaged (defoliation and yellowing combined)**														
	trees up to 59 years old							**trees 60 years and older**							
	1	2	3	4	5	6	7 (1-6)	8	9	10	11	12	13	14 (8-13)	15 (7+14)
species:	020	046	048	049	051	others	Total	020	046	048	049	051	others	Total	Grand total
area of species:															
no. of sample trees:	207	87	45	143	191	265	938	399	0	135	32	298	229	1093	2031
combined damage class	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
0 : not damaged	44,44	45,98	20	27,27	86,91	49,81	50,96	38,85	0	16,3	3,13	12,75	42,36	28,64	38,95
1 : slightly damaged	45,41	24,14	37,78	31,47	6,81	32,08	29,32	45,61	0	45,93	21,88	45,64	41,92	44,19	37,32
2 : moderately damaged	8,21	24,14	42,22	39,16	6,28	15,85	17,8	13,53	0	31,85	68,75	37,92	12,23	23,79	21,02
3 : severely damaged	0,97	4,6	0	2,1	0	1,51	1,39	1,75	0	4,44	6,25	2,01	3,06	2,56	2,02
4 : dead	0,97	1,15	0	0	0	0,75	0,53	0,25	0	1,48	0	1,68	0,44	0,82	0,69
Total	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100

Convention on Long-Range Transboundary Air Pollution
International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

Annual report on health status of main tree species on the basis of defoliation:

SURVEY **2012**

ALL SPECIES

form C

Country: 57

All species

no. of sample plots	no. of sample trees	% trees defoliated						
		class 0 not defoliated	class 1 slightly defoliated	class 2 moderately defoliated	class 3 severely defoliated	class 4 dead	class 2 to 4 moderately to dead	class 1 to 4 slightly to dead
100	2400	36,62	34,92	25,21	2,62	0,62	28,46	63,38