

SECTION 14 INCIDENT REPORT (*Waste Management and Pollution Control Act*)

Date and Time of Notification:	Initial notification (email) – 26 March 2024 at 20:31.												
Person / Company:	McArthur River Mining Pty Ltd (MRM).												
Incident:	On 26 March 2024, seepage was observed at the base of the North Overburden Emplacement Facility (NOEF) at McArthur River Mine (the Mine).												
(a) the incident causing or threatening to cause pollution	<p>Seepage was observed at the north and north-east sides of the NOEF, and at the SEL1 spillway. Prior to containment, the NOEF seepage was reporting to the Northern Cleanwater Drain. The minor seepage observed at the SEL1 spillway was reporting to a drainage line upstream of Barney Creek.</p> <p>Based on the available data, the environmental risk in the McArthur River channel at or downstream of the McArthur River compliance point on the incident date and directly thereafter is considered to be low.</p>												
b) the place where the incident occurred	<p>The Global Positioning System (GPS) points for the seepage locations are provided in Table 1 and shown in Figure 1.</p> <p style="text-align: center;"><i>Table 1 – GPS Coordinates of incident location</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Incident Locations</th> <th>Easting*</th> <th>Northing*</th> </tr> </thead> <tbody> <tr> <td>Seepage (North)</td> <td>618515.4</td> <td>8186184</td> </tr> <tr> <td>Seepage (North-East)</td> <td>618664.2</td> <td>8186057</td> </tr> <tr> <td>Seepage (SEL1)</td> <td>618718.1</td> <td>8184562</td> </tr> </tbody> </table> <p><i>*All coordinates were taken using the MGA Zone 53 (GDA94) coordinate reference system.</i></p>	Incident Locations	Easting*	Northing*	Seepage (North)	618515.4	8186184	Seepage (North-East)	618664.2	8186057	Seepage (SEL1)	618718.1	8184562
Incident Locations	Easting*	Northing*											
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(c) the date and time of the incident	MRM first became aware of the incident by observation on 26 March 2024 at 08:37.												

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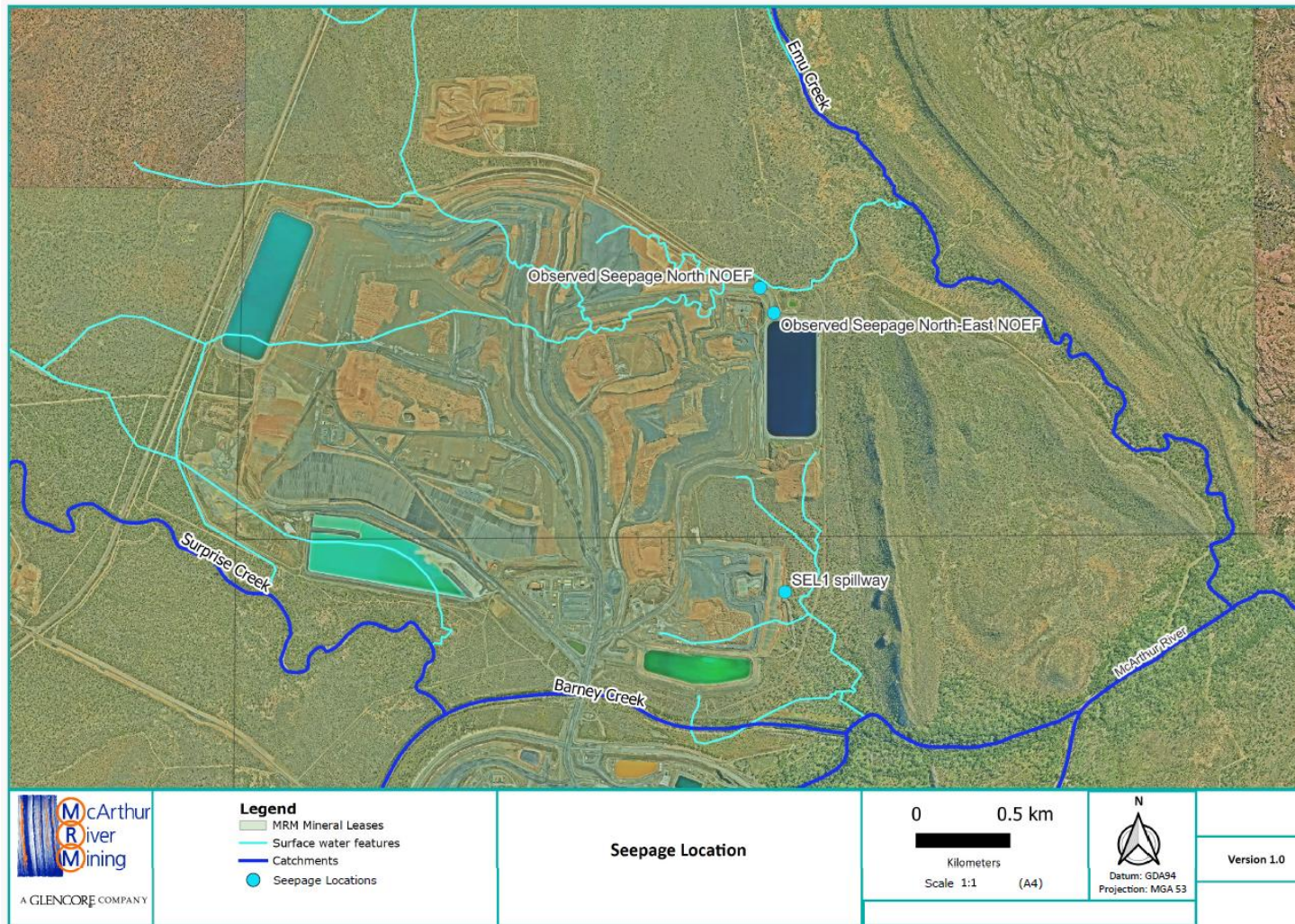


Figure 1. Observed seepage and investigative sample locations relevant to the Mine.

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<p>d) how the pollution has occurred, is occurring or may occur</p>	<p>In March 2024, the McArthur River Mine (the Mine) and surrounding area experienced significant rainfall as a result of ex-Tropical Cyclone Megan passing through the region. The resulting 24-hour rainfall recorded at the Mine was up to approximately 1 in 85-year intensity, which is the highest recorded rainfall at the Mine since the beginning of monitoring in 1969. The severe intensity of this event has resulted in a significant increase of site water inventory, and flows in the McArthur River up to approximately 7,200 cubic metres per second (m³/s), with maximum river heights of up to 18 metres.</p> <p>On 26 March 2024 at approximately 08:37, seepage was observed at the north and northeast side of the NOEF at the base of the flood protection levee, which was reporting to the Northern Cleanwater Drain, which eventually reports to the McArthur River. Minor seepage was also observed flowing from the rock mattress at the SEL1 spillway. The SEL1 storage was inundated during flooding of the McArthur River associated with ex-TC Megan.</p>
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<p>(e) the attempts made to prevent, reduce, control, rectify or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident</p>	<p>Clean-up Works</p> <p>The following actions were undertaken in response to the incident:</p> <ul style="list-style-type: none"> • Immediately ceasing managed releases from authorised discharge and release locations until mitigation measures were installed and operational. • Identification of all known seepage locations at the toe of the NOEF. • Construction of embankments lined with alluvium to capture mine derived seepage where visible seepage was occurring. • Construction of sumps to pump seepage back to the Mine water management system. • Dewatering of the SEL1 to reduce the water level below the rock mattress of the spillway. Water was pumped to MRM’s Water Management System. • Additional surface water monitoring. <p>Potential for Environmental Harm</p> <p>Based on the available data, the environmental risk in the McArthur River at or downstream of the Surface Water 11 (SW11) compliance point on 26 March 2024 or thereafter is considered to be low.</p> <p>Prior to the incident response, the seepage from the north and northeast sections of the NOEF was reporting to the Northern Cleanwater Drain, which eventually leads to the McArthur River downstream of the Mine. The minor seepage observed at the SEL1 spillway was reporting to a drainage line upstream of Barney Creek, which also flows to the McArthur River. Attachment 1 shows the location of the McArthur River in relation to the observed incident locations. The seepages during the event were likely significantly diluted by extreme rainfall and flood waters associated with ex-TC Megan, including:</p> <ul style="list-style-type: none"> • High regional and localised rainfall – a total of 334.8 millimetres was recorded at the MRM Airport BOM station between 18 and 19 March. Which resulted in extreme flooding of the McArthur River and its local tributaries; and • Significant flow in McArthur River – on 26 March, MRM’s gauging station recorded flow rates of 1,556 to 932 m³/s at SW11 in the McArthur River. <p>On 26 March 2024, a water quality sample was taken in the tributary approximately 150 m downstream of the SEL1 spillway. All analytes measured in this sample were below the respective WDL Site-Specific Trigger Values (SSTVs) for the McArthur River, indicating that the environmental risk associated with the minor SEL1 seepage was low.</p> <p>In the 8 days subsequent to the rainfall event, a total of 39 water quality samples were collected downstream of mining operations. All but one sample returned concentrations below the Waste Discharge Licence (WDL) 174-15 SSTVs (See Attachment 2). This single sample was collected from the Western</p>
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side of SW11 (SW11_West) on 26 March 2024. Additionally, a sample collected from the SW11 East on the same date was less than 2 micrograms per litre ($\mu\text{g/L}$) (i.e. well below the SSTV for zinc).

Due to the significant flooding occurring in the McArthur River following the cyclone, access to the regular SW11 compliance monitoring point was restricted for a number of days. Accordingly, MRM obtained samples from the nearby SW11 west and SW11 east locations on 26 March 2024 due to the floodwater access restrictions.

- SW11 west – was sampled from an overbank channel on the western side that was not connected to the McArthur River main channel.
- SW11 east – was sampled from the eastern side of the McArthur River main channel.

An investigation into the filtered zinc concentration recorded above the SSTV has shown that the SW11 west sample was not considered to be representative of McArthur River water as it was:

- not connected to the main McArthur River channel; and
- not mixed with significant flow from the main McArthur River channel.

Given all other samples taken from SW11 and further downstream were below the WDL SSTVs, the environmental risk in the McArthur River channel at or downstream of SW11 on 26 March 2024 or thereafter is considered to be low. Further, the potential impact to the overall health of the McArthur River and beneficial uses is also considered to be low.

Details of Sampling

Water samples were taken from SW11 and three downstream McArthur River investigation locations; DS1, DS2 and DS3. Additionally, samples were taken at the McArthur River monitoring site SW08 and SW32, which are located at, and slightly upstream of the Burketown causeway in Borroloola, approximately 60km downstream from the Mine (see Table 2 for GPS coordinates).

Table 2. GPS coordinates of the sample locations relating to the incident.

Sample ID	Easting*	Northing*
SW11	622240	8185658
Downstream 1 (Investigative sample)	624670.6	8189135
Downstream 2 (Investigative sample)	626636.6	8191101
Downstream 3 (Investigative sample)	627519.1	8195147
SW32	640500	8215606
SW08	640799	8221573

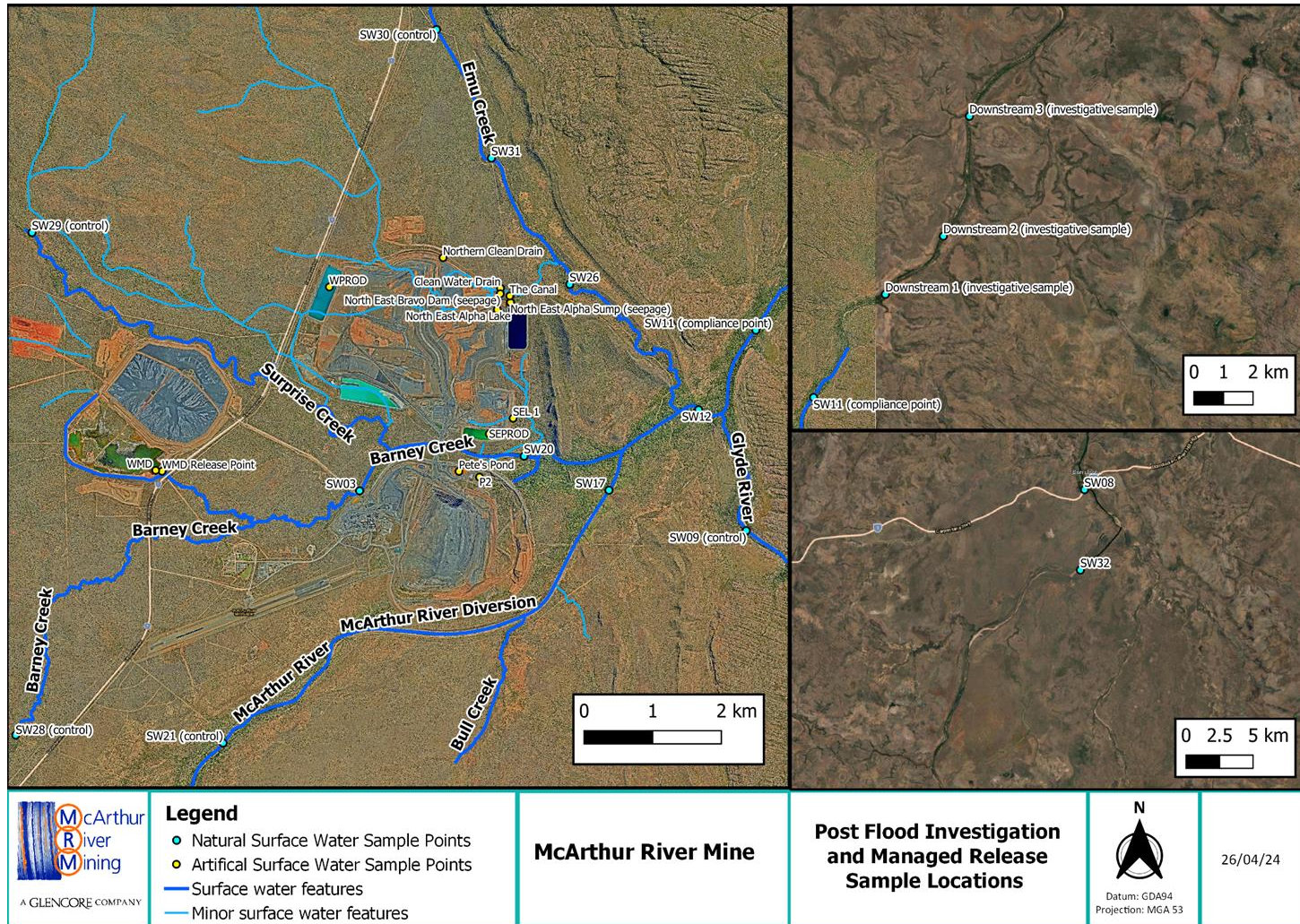
**All coordinates were taken using the MGA Zone 53 (GDA94) coordinate reference system.*

As discussed above, the final water quality results from all the McArthur River samples were compared to the WDL SSTVs, and all representative samples taken after 26 March 2024, were below the SSTVs (see Attachment 2).

	<p>Prevention</p> <p>MRM is in the process of completing an incident investigation to identify any potential augmentation to its management and monitoring system to prevent the recurrence of a similar event.</p>
<p>(f) the identity of the person notifying the NT EPA</p>	<p>Simon Longhurst Superintendent - Environment</p>

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Attachment 1: SW11 compliance point and downstream sample locations relevant to the Mine



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Attachment 2: SW11 compliance point and downstream samples compared to WDL 174-15 SSTVs

Location	Date	Time	pH	EC	Al_F	As_F	Cd_F	Co_F	Cu_F	Fe_F	Pb_F	Mn_F	Ni_F	Tl_F	Zn_F	SO4	NO3
			pH Units	µS/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	ug/L
WDL SSTVs			6.0 - 8.5	1,000	269	24	1.73	1.4	9	347	17	1,900	11	58	32	1,000	10,600
SW11	1/04/2024	11:19	7.2	40	28	<0.5	<0.2	<1	<1	110	<0.5	0.6	<1	<0.1	<2	0.4	<100
DS 1	1/04/2024	11:08	7.8	146	19	<0.5	<0.2	<1	<1	127	<0.5	0.6	<1	<0.1	<2	7.8	<100
DS 2	1/04/2024	10:59	7.9	176	10	<0.5	<0.2	<1	<1	75	<0.5	0.5	<1	<0.1	<2	13	<100
DS 3	1/04/2024	10:50	7.9	218	5	<0.5	<0.2	<1	<1	55	<0.5	1.9	<1	0.1	<2	26	<100
SW11	31/03/2024	09:59	7.2	41	36	<0.5	<0.2	<1	<1	88	<0.5	0.6	<1	<0.1	<2	0.4	<100
DS 1	31/03/2024	09:49	7.7	174	13	<0.5	<0.2	<1	<1	60	<0.5	0.5	<1	<0.1	<2	21	<100
DS 2	31/03/2024	09:41	7.7	174	15	<0.5	<0.2	<1	<1	77	<0.5	<0.5	<1	<0.1	<2	18	<100
DS 3	31/03/2024	09:34	7.7	142	20	<0.5	<0.2	<1	<1	91	<0.5	0.6	<1	<0.1	<2	10	<100
SW11	30/03/2024	09:08	7.5	86	27	<0.5	<0.2	<1	<1	107	<0.5	2.4	<1	<0.1	<2	0.8	153
SW08	30/03/2024	08:06	7.8	186	10	<0.5	<0.2	<1	<1	73	<0.5	22	<1	<0.1	<2	12	138
SW32	30/03/2024	08:19	7.9	200	9	<0.5	<0.2	<1	<1	76	<0.5	4.2	<1	<0.1	4	13	121
DS 1	30/03/2024	09:00	7.8	230	8	<0.5	<0.2	<1	<1	45	<0.5	1.3	<1	<0.1	<2	24	137
DS 2	30/03/2024	08:45	7.9	272	8	<0.5	<0.2	<1	<1	45	<0.5	0.6	<1	<0.1	<2	25	142
DS 3	30/03/2024	08:37	7.8	216	7	<0.5	<0.2	<1	<1	44	<0.5	1.4	<1	<0.1	<2	16	136
SW11	29/03/2024	08:54	7.1	38	45	<0.5	<0.2	<1	<1	108	<0.5	1.5	<1	<0.1	<2	0.5	<100
SW08	29/03/2024	13:56	7.8	150	13	<0.5	<0.2	<1	<1	78	<0.5	0.9	<1	<0.1	4	14	107
SW32	29/03/2024	13:45	7.8	164	13	<0.5	<0.2	<1	<1	70	<0.5	5.9	<1	<0.1	9	15	105
DS 1	29/03/2024	09:03	7.6	130	20	<0.5	<0.2	<1	<1	91	<0.5	2.4	<1	<0.1	3	8.1	114
DS 2	29/03/2024	09:11	7.7	162	17	<0.5	<0.2	<1	<1	77	<0.5	2.5	<1	<0.1	8	11	<100
DS 3	29/03/2024	09:19	7.7	158	14	<0.5	<0.2	<1	<1	73	<0.5	3.4	<1	<0.1	10	12	<100
SW11	28/03/2024	11:25	7.4	29	36	<0.5	<0.2	<1	<1	78	<0.5	0.6	<1	<0.1	<2	0.6	<100
DS 1	28/03/2024	11:35	7.4	60	23	<0.5	<0.2	<1	<1	80	<0.5	0.5	<1	<0.1	<2	1.2	<100

DS 2	28/03/2024	11:42	7.5	85	23	<0.5	<0.2	<1	<1	82	<0.5	<0.5	<1	<0.1	<2	1.4	107
DS 3	28/03/2024	11:49	7.5	87	20	<0.5	<0.2	<1	<1	81	<0.5	1.2	<1	<0.1	<2	2.1	132
SW11	27/03/2024	10:16	7.5	69	55	<0.5	<0.2	<1	<1	146	<0.5	8	<1	<0.1	<2	0.6	<100
SW11	27/03/2024	15:04	7	38	40	<0.5	<0.2	<1	<1	105	<0.5	5.9	<1	<0.1	<2	0.4	<100
SW11_PM	27/03/2024	15:04	7	38	40	<0.5	<0.2	<1	<1	105	<0.5	5.9	<1	<0.1	<2	0.4	<100
SW11_DS_1	27/03/2024	10:31	7.8	178	31	<0.5	<0.2	<1	<1	117	<0.5	11	<1	<0.1	10	14	<100
SW11_DS_2	27/03/2024	10:37	7.9	232	14	<0.5	<0.2	<1	<1	74	<0.5	16	<1	0.1	23	24	<100
SW11_DS_3	27/03/2024	10:48	7.8	272	19	0.5	<0.2	<1	<1	100	<0.5	17	<1	0.1	23	29	<100
DS1_PM	27/03/2024	15:15	7.6	158	16	<0.5	<0.2	<1	<1	92	<0.5	7	<1	<0.1	9	7.9	<100
DS2_PM	27/03/2024	15:25	7.8	186	19	<0.5	<0.2	<1	<1	92	<0.5	6.3	<1	<0.1	9	9.8	<100
DS3_PM	27/03/2024	15:33	7.8	218	10	<0.5	<0.2	<1	<1	78	<0.5	11	<1	<0.1	11	19	<100
SW11_EAST	26/03/2024	09:10	6.9	63	31	0.6	<0.2	<1	<1	177	<0.5	35	<1	<0.1	<2	0.7	<100
SW11_WEST	26/03/2024	09:00	7.1	426	8	0.6	<0.2	2	<1	34	<0.5	174	3	0.6	248	124	<100
SW11_1	26/03/2024	14:14	7.4	57	37	<0.5	<0.2	<1	<1	127	<0.5	5.4	<1	<0.1	<2	0.5	<100
SW11_2	26/03/2024	15:25	7.5	57	38	<0.5	<0.2	<1	<1	123	<0.5	4.8	<1	<0.1	<2	0.5	<100
SW08	26/03/2024	14:53	7.8	182	14	<0.5	<0.2	<1	<1	80	<0.5	13	<1	<0.1	4	20	<100
SW11	25/03/2024	11:15	7.6	216	29	<0.5	<0.2	<1	<1	64	<0.5	16	<1	0.3	24	56	113