



# **Walgett Shire Council Walgett Sewage Treatment System**

**DECCW  
Licence 13056  
Outflow**

**Test Results  
August 2024  
Bate Street  
Walgett NSW 2832**



**82 Plain Street  
TAMWORTH NSW 2340  
Phone: 02 6762 1733  
Fax: 02 6765 9109  
Email: [admin@eastwestonline.com.au](mailto:admin@eastwestonline.com.au)  
Website: [www.eastwestonline.com.au](http://www.eastwestonline.com.au)  
ABN 52 655 947 827**

*This document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. This document should not be used or copied without the written authorisation of East West Enviroag Pty Limited or Walgett Shire Council.*

*This report does not provide a complete assessment of the environmental integrity of the site and is limited to the scope defined herein. Should any reader require that other matters be considered apart from those considered within this report, they should then make their own investigations and form their own conclusions.*

*This report has been prepared by:*

**Stephanie Cameron**

Independent consultant for agriculture & the environment  
(B.App.Sc)

*Ref.: EW241466*

*Enc.: Envirolab COA 359776*



**Table 2: Summary of testing results for Licence 13056; Point 1:**

Analyte	Units	Point 1							100 Percentile Limit	Guidelines
		EW231890 -1	EW240462 -1	EW241065 -1	EW241466 -1					
		26/10/23	08/02/2024	16/05/2024	20/08/2024					
Oil & Grease	mg/L	<5	19	<5	10				<b>10</b>	<b>1000</b>
pH	pH Units	9.0	10.0	7.8	7.9				<b>6.5-8.5</b>	<b>6.0-8.5</b>
Total Nitrogen	mg/L N	0.05	49	3.6	6.3				<b>20</b>	<b>125</b>
Total Phosphorus	mg/L P	5.7	11	5.4	4.6				<b>10</b>	<b>12</b>
BOD	mg/L	38	300	37	20				<b>20</b>	<b>N/A</b>
Total Suspended Solids	mg/L	38	190	60	18				<b>50</b>	<b>N/A</b>
Faecal Coliforms	cfu/ 100mL	170	<18	>1,000	>100 & <1000				<b>N/A</b>	<b>1000</b>
Total Coliforms	cfu/ 100mL	260	130	>10,000	44,000 NBO				<b>N/A</b>	<b>N/A</b>

**100 Percentile Concentration Limit:** NSW Environment, Climate Change & Water (2011) *Walgett Shire Council Environmental Protection Licence 13056 – Walgett Sewage Treatment.*

**Guidelines:** ANZECC (2000) *Australian & New Zealand Guidelines for Fresh & Marine Waters for Primary Industries.* DECCW (2004) *Environmental Guidelines: Use of Effluent by Irrigation.*

**NS** ~ Sample could not be collected

**NT** ~ Testing not required

**Na** ~ Not applicable

30<sup>th</sup> August 2024

Director of Engineering/Technical Services  
Walgett Shire Council  
PO Box 31  
Walgett NSW 2832  
Email: [admin@walgett.nsw.gov.au](mailto:admin@walgett.nsw.gov.au)

To whom it may concern,

The following comments are offered after studying the results for contained effluent sampled at Point 1 on the 20<sup>th</sup> August 2024:

1. **Oil & Grease (O&G)** is a measure of a variety of substances including fuels, motor oil, lubricating oil, hydraulic oil, cooking oil, and animal-derived fats. Point 1 O&G is again at the 100 percentile concentration limit specified in EPL 13056.
2. **pH** is a measure of the concentration of hydrogen ion, which determines how acidic or basic the water is. The pH at 7.9 is at acceptable levels and is within the 100-percentile concentration range of 6.0-8.5 pH units.
3. **Total nitrogen** and **total phosphorus** are nutrients essential for plant growth and minor increases in these nutrient levels can alter natural ecosystems. Increasingly, waterways and groundwater systems are showing the effects of these nutrients. Therefore the discharge of effluent should be managed to avoid excessive nutrient levels where possible. Point 1 has acceptable levels of total phosphorus and nitrogen, according to the limit specified in EPL 13056.
4. **BOD** (Biological Oxygen Demand) is a measure of the oxygen used by microorganisms to decompose waste. Sewage treatment systems contain huge quantities of organic waste where bacteria present are working to decompose waste. The demand for oxygen will be high (due to all the bacteria) where the BOD level is high. As the waste is consumed by the bacteria, BOD levels will be low. BOD level at Point 1 has further decreased to 20mg/L which at the limit specified in EPL 13056.



5. **Total Suspended Solids (TSS)** consists of an inorganic fraction (silts, clays, etc.) and an organic fraction (algae, zooplankton, bacteria, and detritus). TSS is carried along suspended in the effluent. TSS can result in cloudiness of the sample and high sediment loads are very obvious because of the sample's muddy or turbid appearance. The TSS at Point 1 have further decreased to 18mg/L which still exceeds the limit specified in EPL 13056.
6. **Faecal Coliforms** of main concern for drinking water quality is the number of faecal coliforms present. This indicates there is no contamination present. Faecal coliforms can come from other mammals and humans. The most common faecal coliform is *E coli*. For irrigation of sports fields the World Health Organisation (WHO) in 2001 recommended a maximum of 1000cfu/100mL. Point 1 has <1,000cfu/100mL faecal coliforms, which is below the irrigation threshold.

### Overall Impressions:

The sample of effluent collected from the new monitoring Point 1, located at the Walgett Sewage Treatment System during August 2024 is at or below the 100 percentile concentration limits specified in EPL 13056 for all parameters.

Please let us know if you would like further comment.

Yours faithfully,

### Stephanie Cameron

Independent consultant for agriculture & the environment  
(B.App.Sc)