



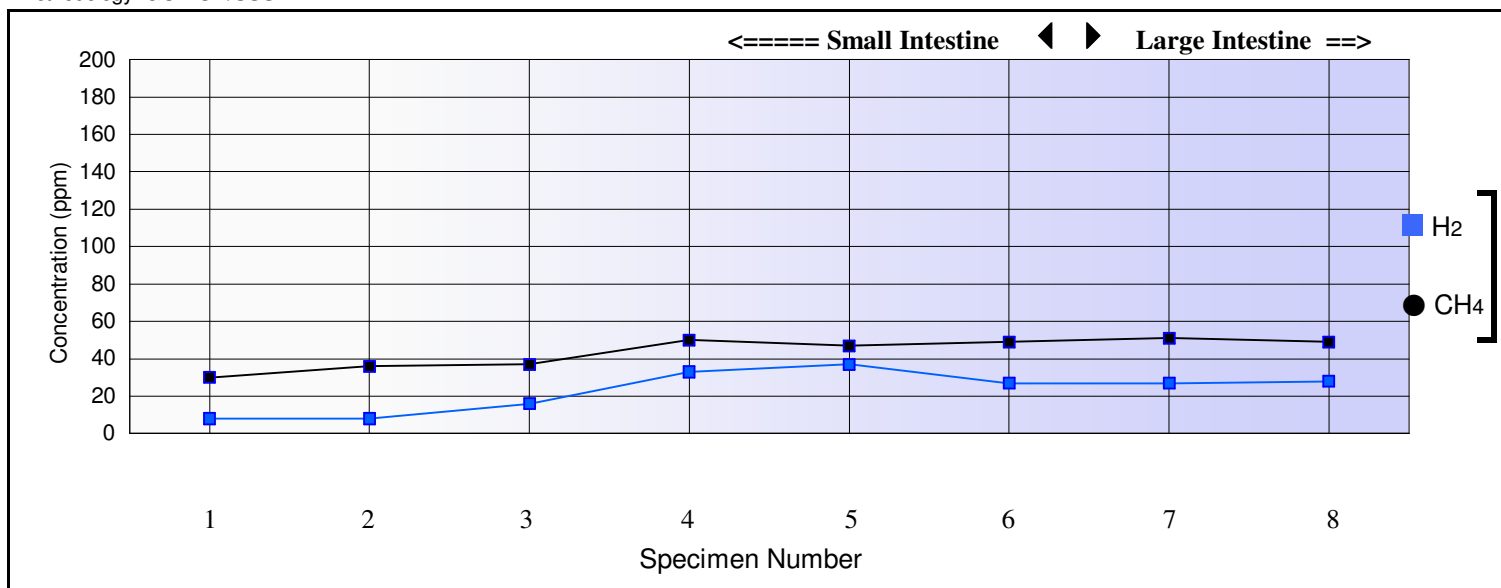
3962962

## LACTULOSE

### SMALL INTESTINAL BACTERIAL OVERGROWTH (SIBO) - 3 HOUR Breath Test

#### Hydrogen (H<sub>2</sub>) and Methane (CH<sub>4</sub>) Breath Gases

Methodology: GC-TCD/SSS



#### Hydrogen (H<sub>2</sub>), Methane (CH<sub>4</sub>) and Carbon Dioxide (CO<sub>2</sub>) (ppm)

|                                  | S1<br>0 mins | S2<br>20 mins | S3<br>40 mins | S4<br>60 mins | S5<br>90 mins | S6<br>120 mins | S7<br>150 mins | S8<br>180 mins |
|----------------------------------|--------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|
| H <sub>2</sub>                   | 8            | 8             | 16            | 33            | 37            | 27             | 27             | 28             |
| CH <sub>4</sub>                  | 30           | 36            | 37            | 50            | 47            | 49             | 51             | 49             |
| H <sub>2</sub> + CH <sub>4</sub> | 38           | 44            | 53            | 83            | 84            | 76             | 78             | 77             |
| CO <sub>2</sub> **               | II           | II            | II            | II            | II            | II             | II             | II             |

#### Actual Collection Times

|                 |      |      |      |      |      |      |      |       |
|-----------------|------|------|------|------|------|------|------|-------|
| Actual Time     | 7:00 | 7:20 | 7:40 | 8:00 | 8:30 | 9:00 | 9:30 | 10:00 |
| Actual Interval | 0    | 20   | 40   | 60   | 90   | 120  | 150  | 180   |

\*\* CO<sub>2</sub> is measured for quality assurance: II indicates the CO<sub>2</sub> level is acceptable ○ indicates room air contamination exceeding acceptable limits

#### Evaluation for Hydrogen (H<sub>2</sub>)

Hydrogen increase over baseline by 90 minutes

|                          |           |                |
|--------------------------|-----------|----------------|
| Change in H <sub>2</sub> | Result    | Expected Value |
|                          | <b>29</b> | < 20 ppm       |

A rise of ≥ 20ppm from baseline in hydrogen by 90 min should be considered a positive test to suggest the presence of SIBO

#### Evaluation for Methane (CH<sub>4</sub>)

Peak methane level at any point

|                      |           |                |
|----------------------|-----------|----------------|
| CH <sub>4</sub> Peak | Result    | Expected Value |
|                      | <b>51</b> | < 10 ppm       |

A peak methane level ≥ 10 ppm at any point is indicative of a methane-positive rise





P: 1300 688 522  
E: info@nutripath.com.au

**-KIRSTY LAKSTINS-ADAMS**  
**KIRSTY LAKSTINS-ADAMS**  
**28 GEOGRAPHE WAY**  
**THORN LIE WA 6108**

**PHOEBE GEORGE**  
**09-Sep-1969**      **Female**

**129A GUILDFORD ROAD**  
**MAYLANDS WA 6051**

**LAB ID :**                    **3962962**  
**UR NO. :**                   **6249733**  
**Collection Date :**   **27-Feb-2024**  
**Received Date:**      **29-Feb-2024**



**3962962**

### Laboratory Comments

#### GENERAL CONSIDERATIONS FOR BREATH TESTING

Small Intestinal Bacterial Overgrowth (SIBO) is a heterogeneous syndrome characterised by an increase in the number and/or the presence of atypical microbiota in the small intestine. The SIBO breath test relies on measurement of gases (Hydrogen and Methane) produced by microbiota in the intestine following ingestion of lactulose, fructose or glucose in a fasting state.

The test also measures Carbon Dioxide as an indicator of correct collection procedure. Carbon Dioxide levels exceeding acceptable limits indicate room air contamination likely at the time of sample collection. The integrity of these samples is questionable and results are designated as " X " (NR-Non-Reportable).

#### FALSE POSITIVES:

Falsely elevated findings may result from incorrect preparation for performing the SIBO test, incomplete avoidance of high-fibre foods, residual fibre in the intestine due to delayed transit time, residual oropharyngeal (mouth and throat) bacteria, and exposure to tobacco smoke, or napping during collection.

#### FALSE NEGATIVES:

A breath test finding with low Methane and no Hydrogen throughout the entire test may be due to an abundance of hydrogen sulfide-producing bacteria, which compete for available hydrogen for production of the hydrogen sulphide gas. For this reason, Methane is measured to rule out false negative hydrogen results.

#### REPORT INTERPRETATION:

SIBO Test results need to be viewed in terms of Hydrogen production, Methane production and Total Hydrogen and Methane production.

A rise in Hydrogen of >20 ppm over baseline in the first 90 minutes of testing, is considered SIBO-Positive.

A peak methane level >10 ppm at any point indicates a methane-positive result, and is considered SIBO-Positive.

A rise in the combined gases (Hydrogen and Methane) level over baseline of 12 - 32 ppm is indicative of a mild SIBO condition, whilst a level of 33 ppm or greater is indicative of a severe SIBO condition.

