LONQUIST FIELD SERVICE

May 9, 2024

Informative Memo:
Sulphur Mines Salt Dome - Cavern No. 7
Sonar Survey Evaluation

On behalf of Westlake US 2, LLC, Lonquist submits the following summary of evaluations completed on the recent April 15, 2024 sonar survey of Cavern No. 7. Attached to this memo are two sets of presentation slides from Lonquist and from Sonic Surveys.

Our conclusions are that the apparent changes in cavern geometry near the western floor of the cavern are most likely related to the following:

- A slight variance in sonar survey acquisition parameters for the most recent April 2024 sonar compared to historical sonars.
- For all sonars, a limited number of data points being acquired within the cavern geometry extents at 282^{O} and 240^{O} – 228^{O} due to the unique geometry of those areas and ability to get sonar tool line-of-sight. This yields a "lower resolution" of data in comparison to the rest of the cavern.
- In consideration of the above points and across all sonars, there has been a slight difference in sonar technician interpretation of the raw data points related to those unique geometry areas.

Therefore, based on the evaluation of the sonar survey data, it is most likely that the apparent geometry changes in the referenced areas are due to sonar acquisition parameters, data resolution, and interpretation related rather than actual geometric changes. For subsequent sonars, Sonic Surveys has suggested some changes to the acquisition parameters (outlined in their presentation) to allow more data points to be acquired within the referenced areas.

If there are any questions, please contact Josh Bradley (Westlake US 2, LLC), Coleman Hale (Lonquist Field Service, LLC), and Troy Charpentier (Kean Miller LLP).

Sincerely,

R. Coleman Hale, P.E.
Vice President / Sr. Petroleum Engineer
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Attachment List

1. Lonquist Sonar Survey Evaluation (May 6, 2024)
2. Sonic Surveys Sonar Evaluation (May 2, 2024)

ATTACHMENT 1

Lonquist Sonar Survey Evaluation (May 6, 2024)

PPG 7B - Sonar Survey Review

Sulphur Dome
Westlake Chemical

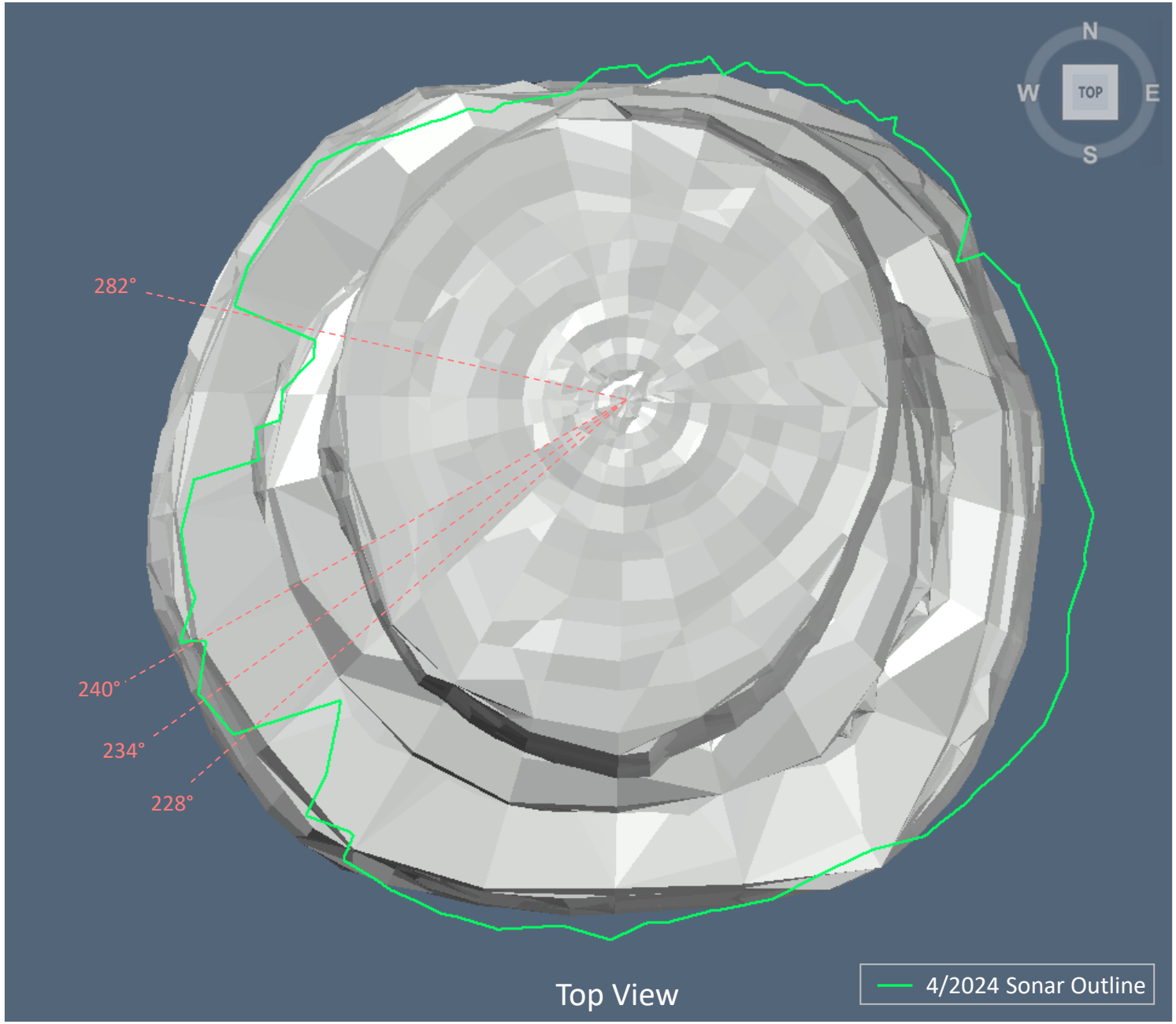
May 2024

Westlake Chemical

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS

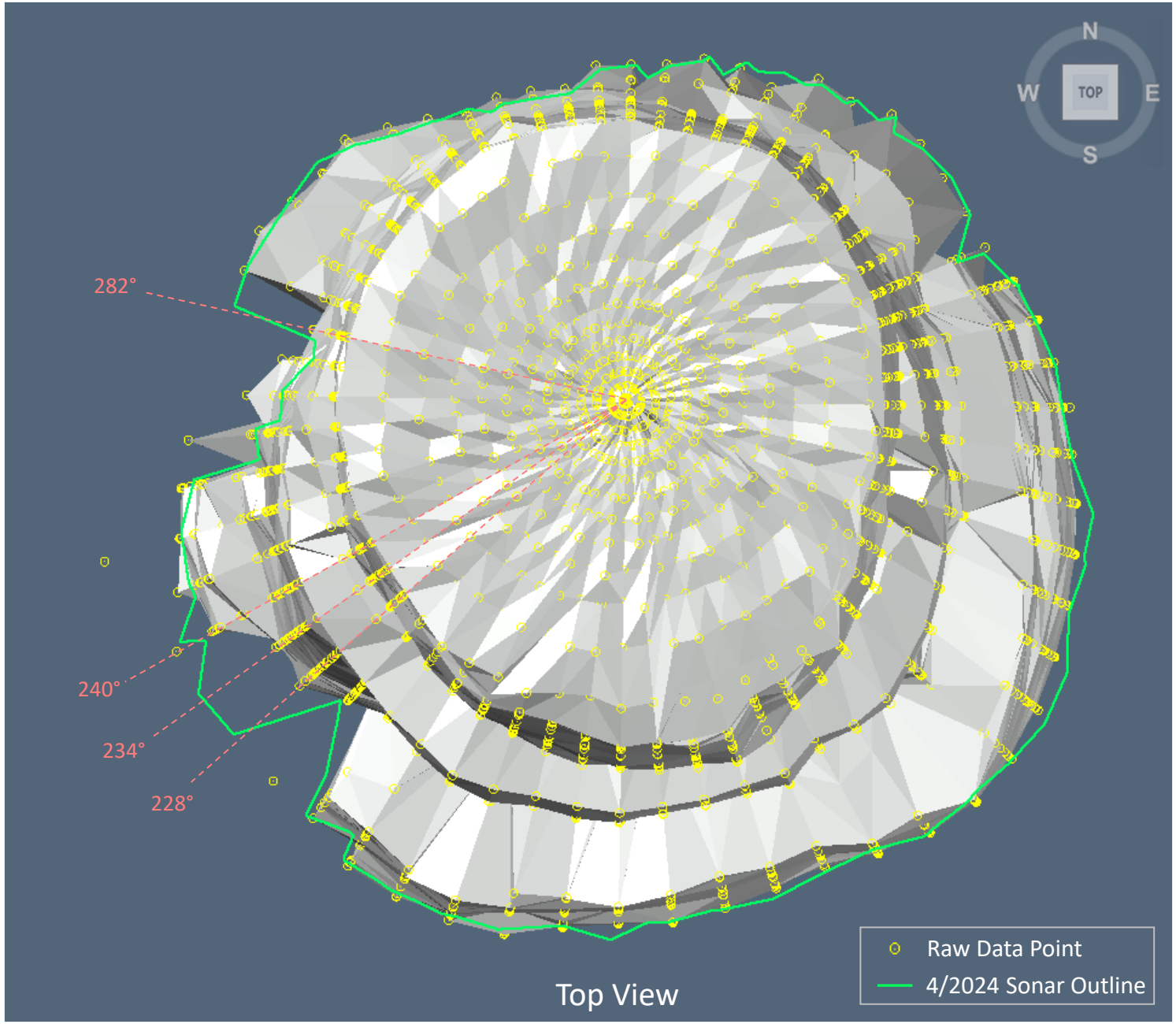
05-2018 Sonar Survey

- Last sonar before change in cavern shape
- Sonar performed by Socon, not Sonic Surveys



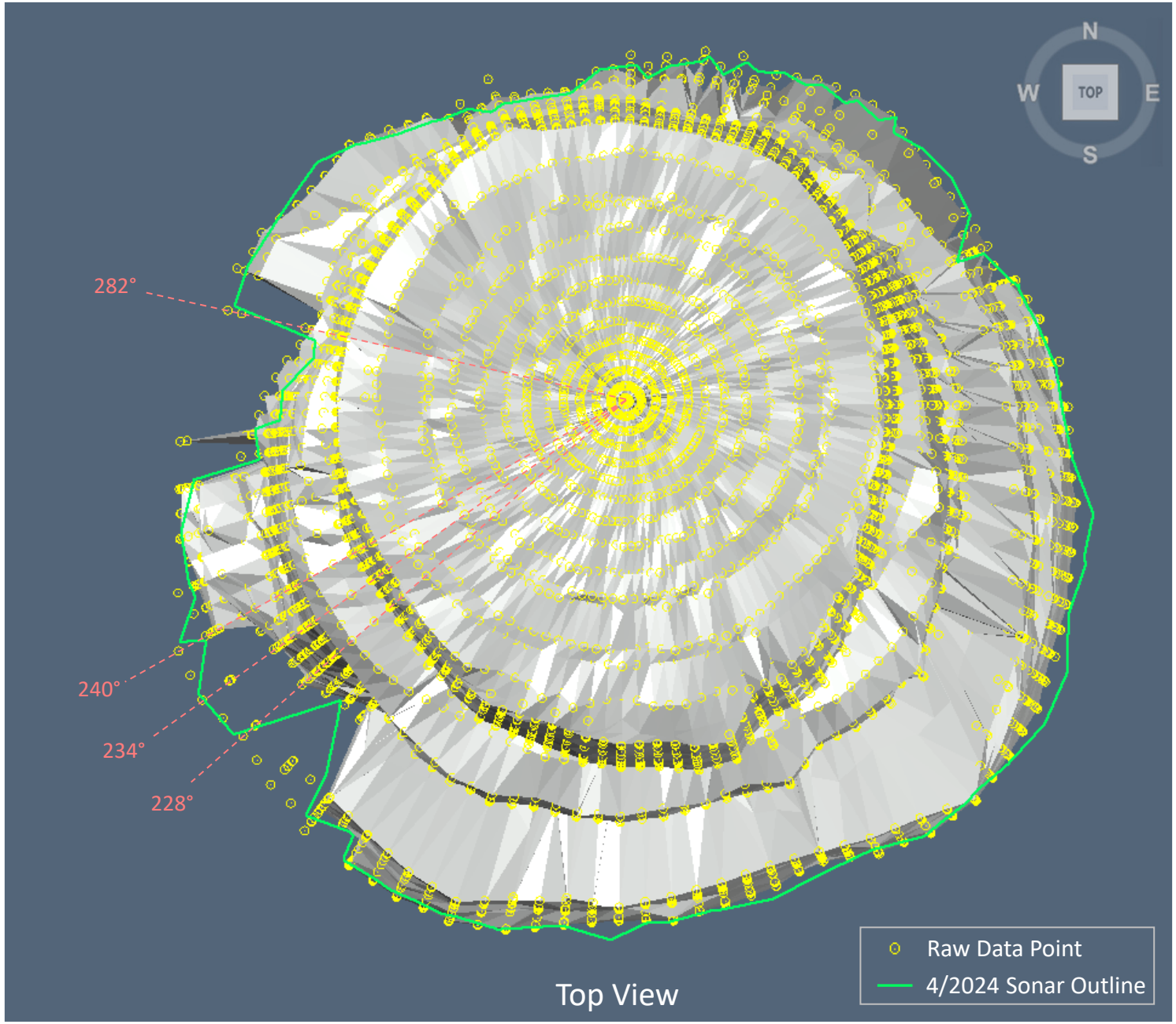
03-2022 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



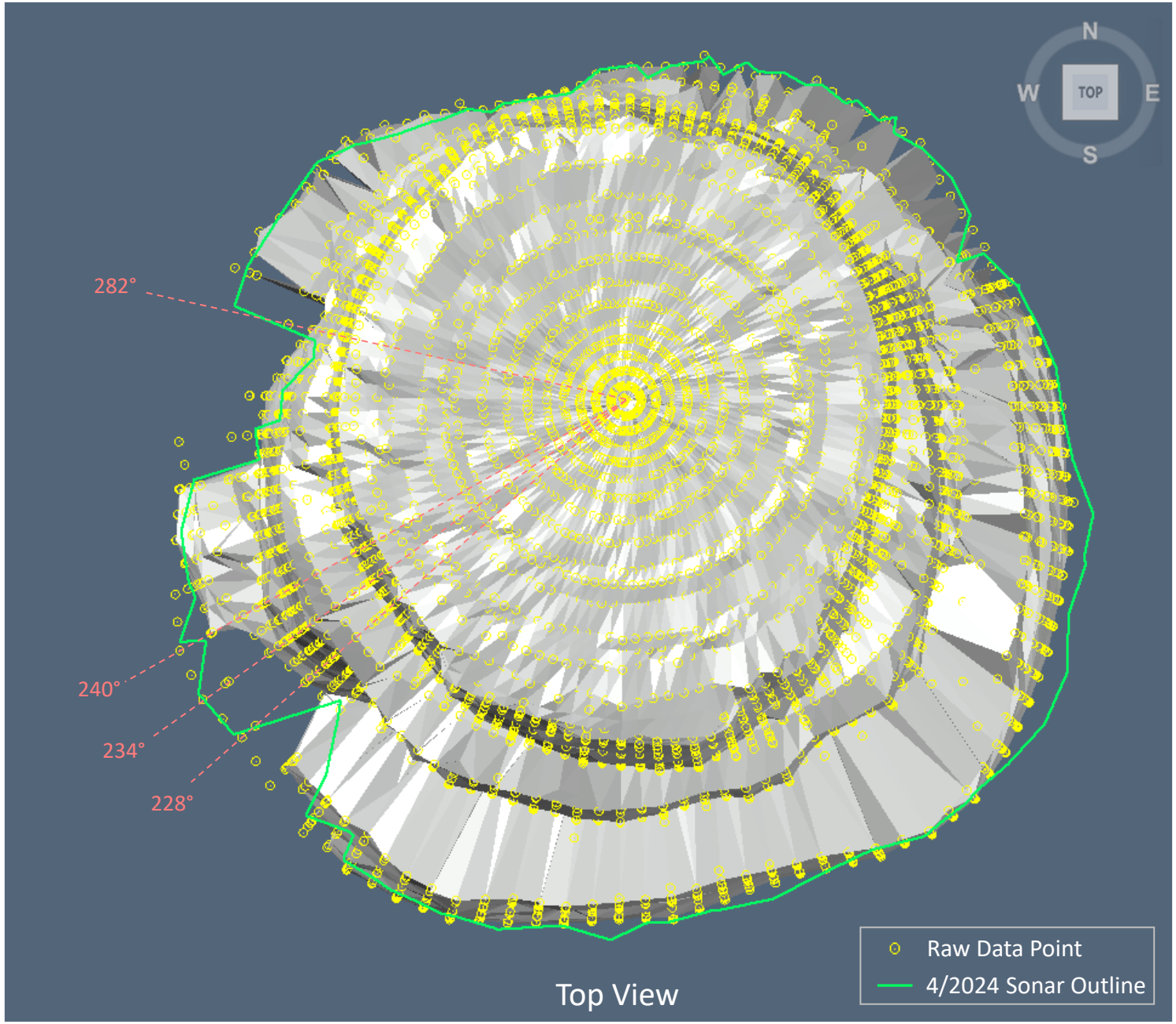
11-2022 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



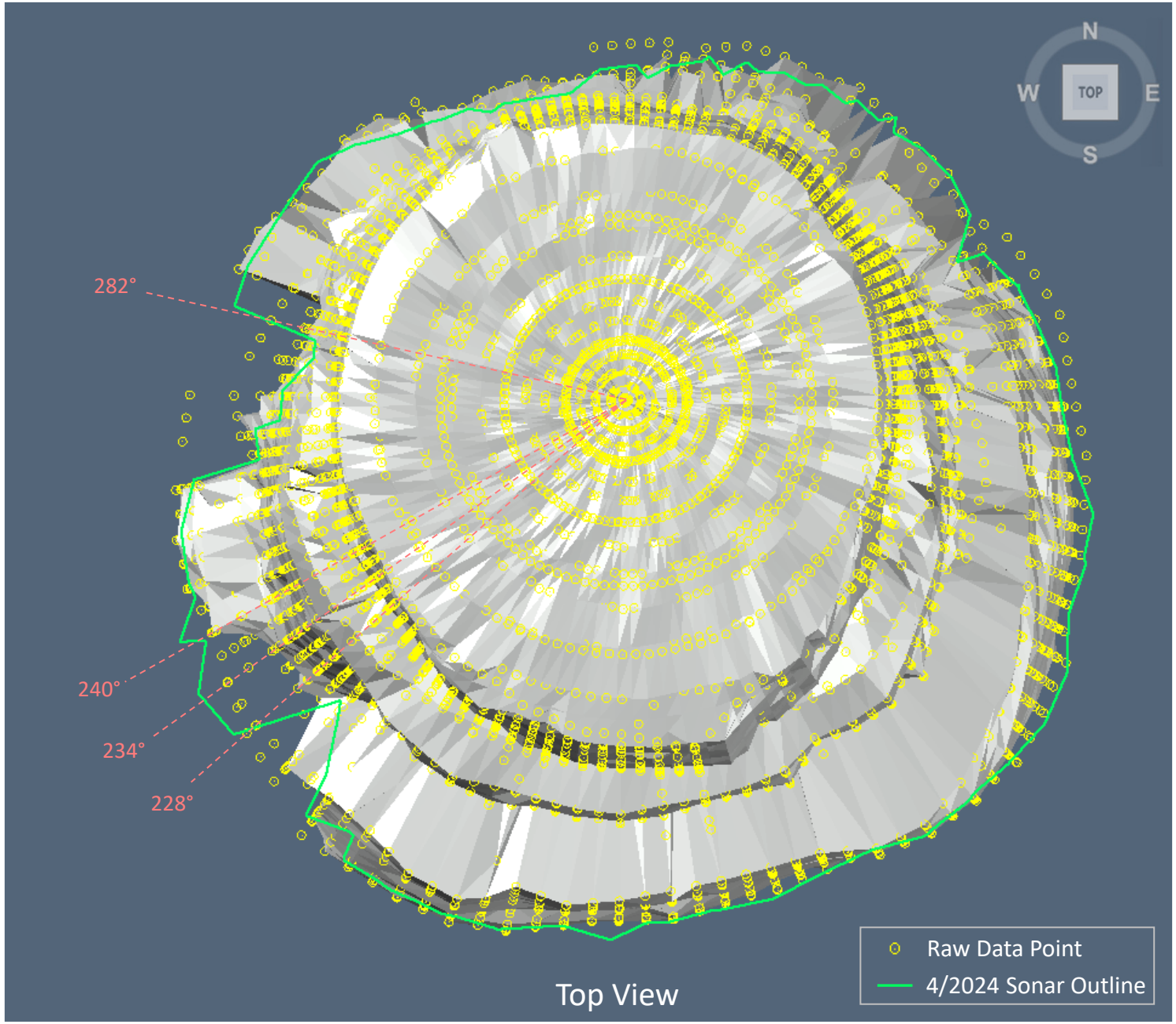
01-2023 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



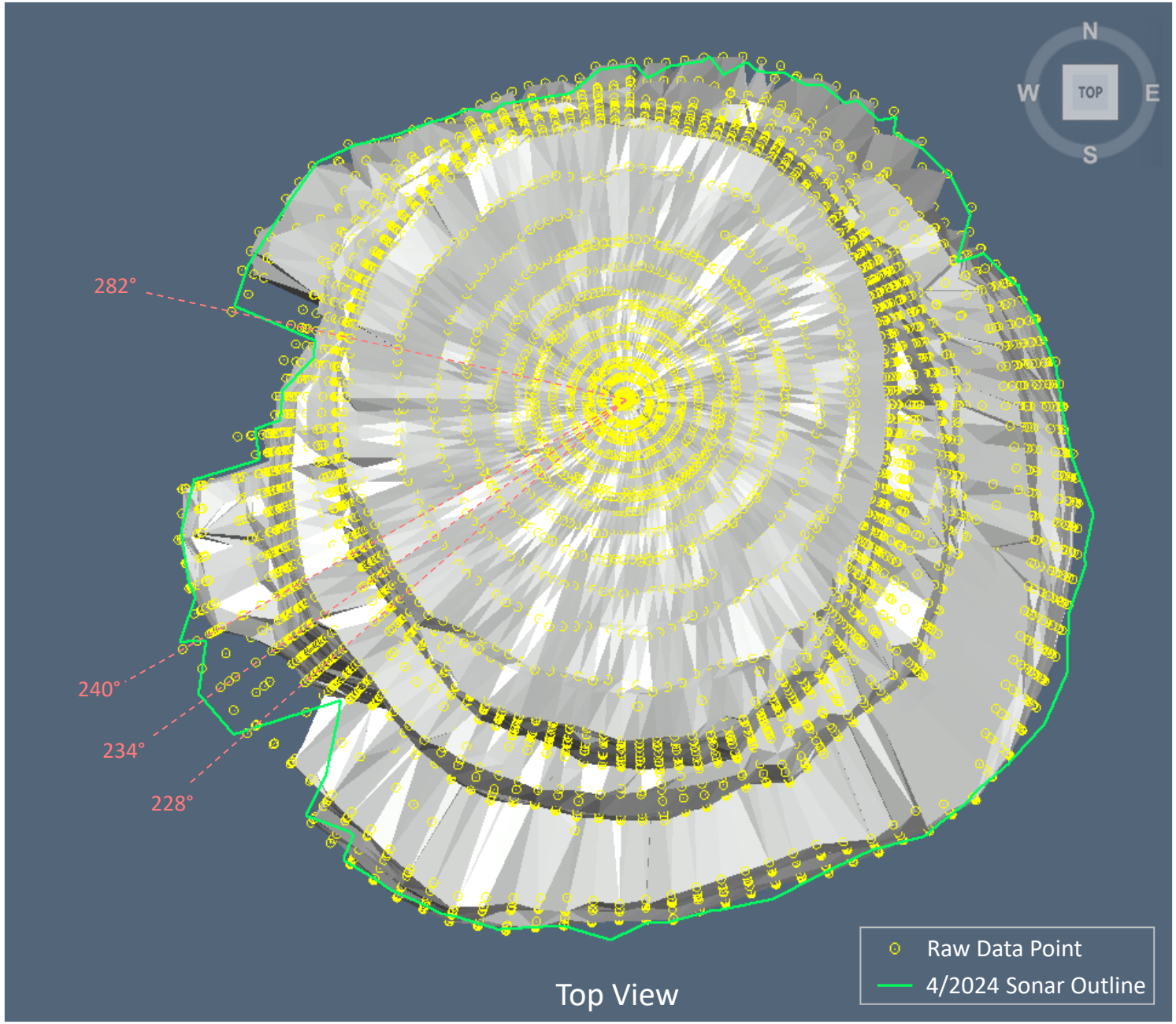
02-2023 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



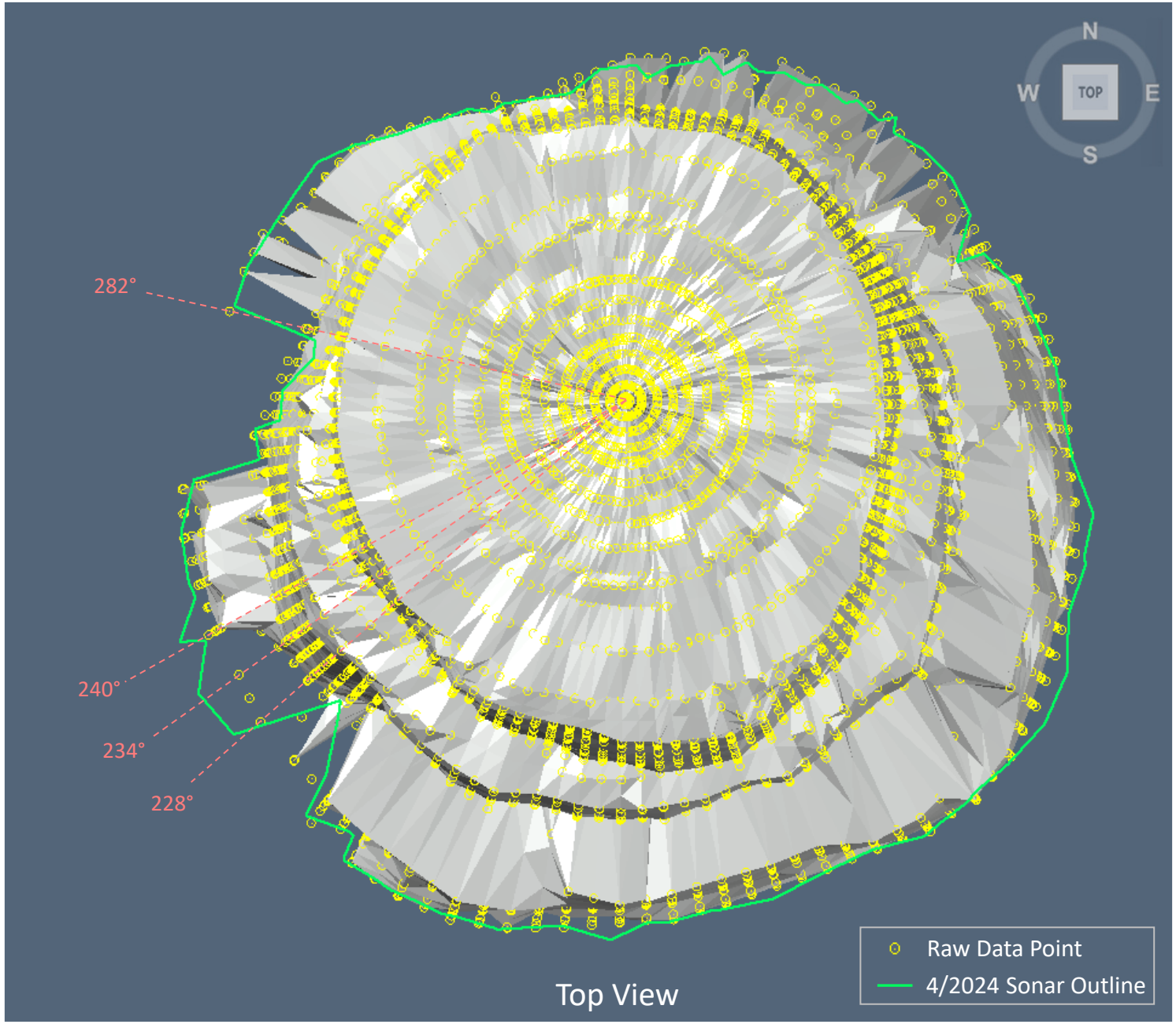
03-2023 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



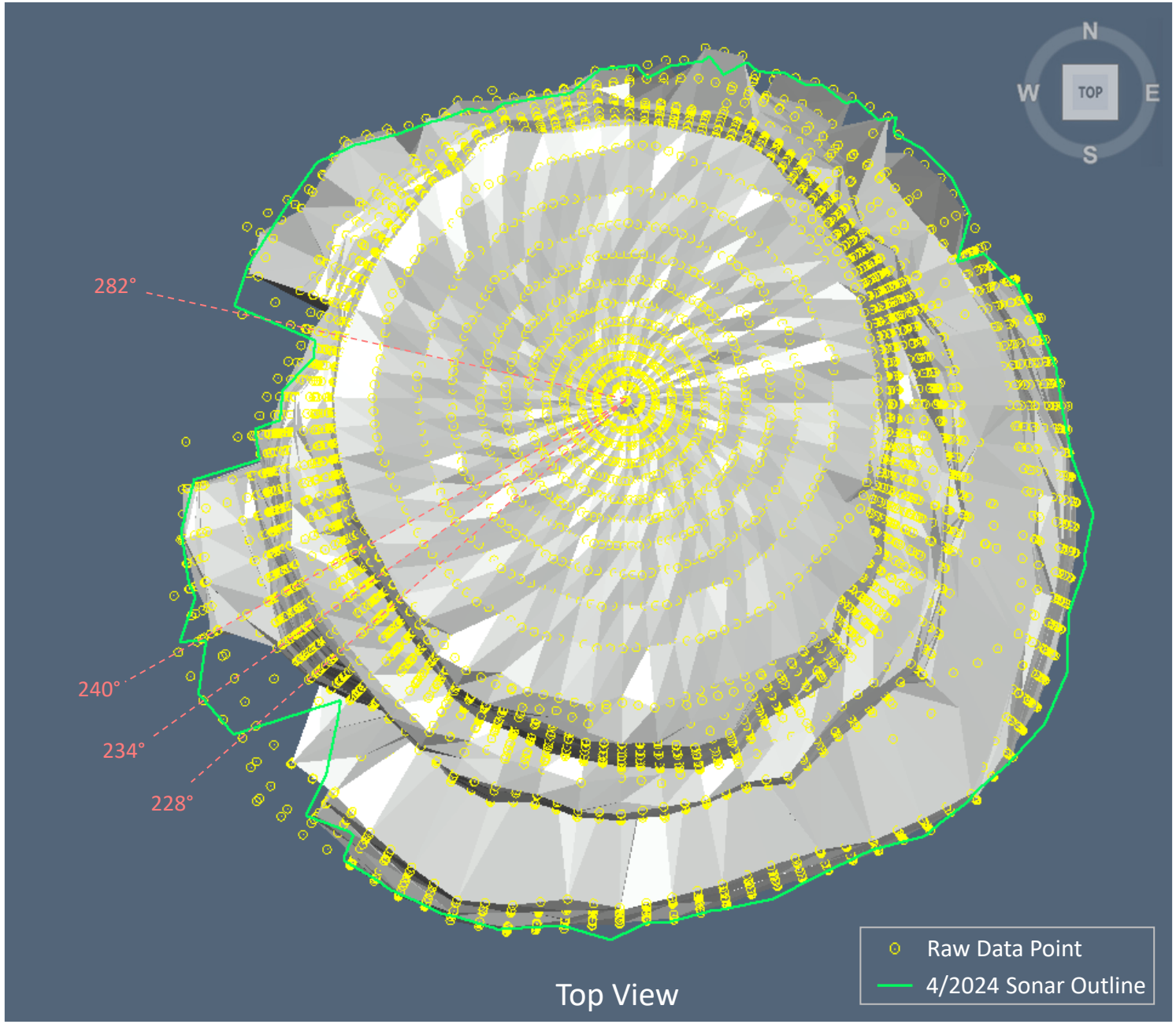
07-2023 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



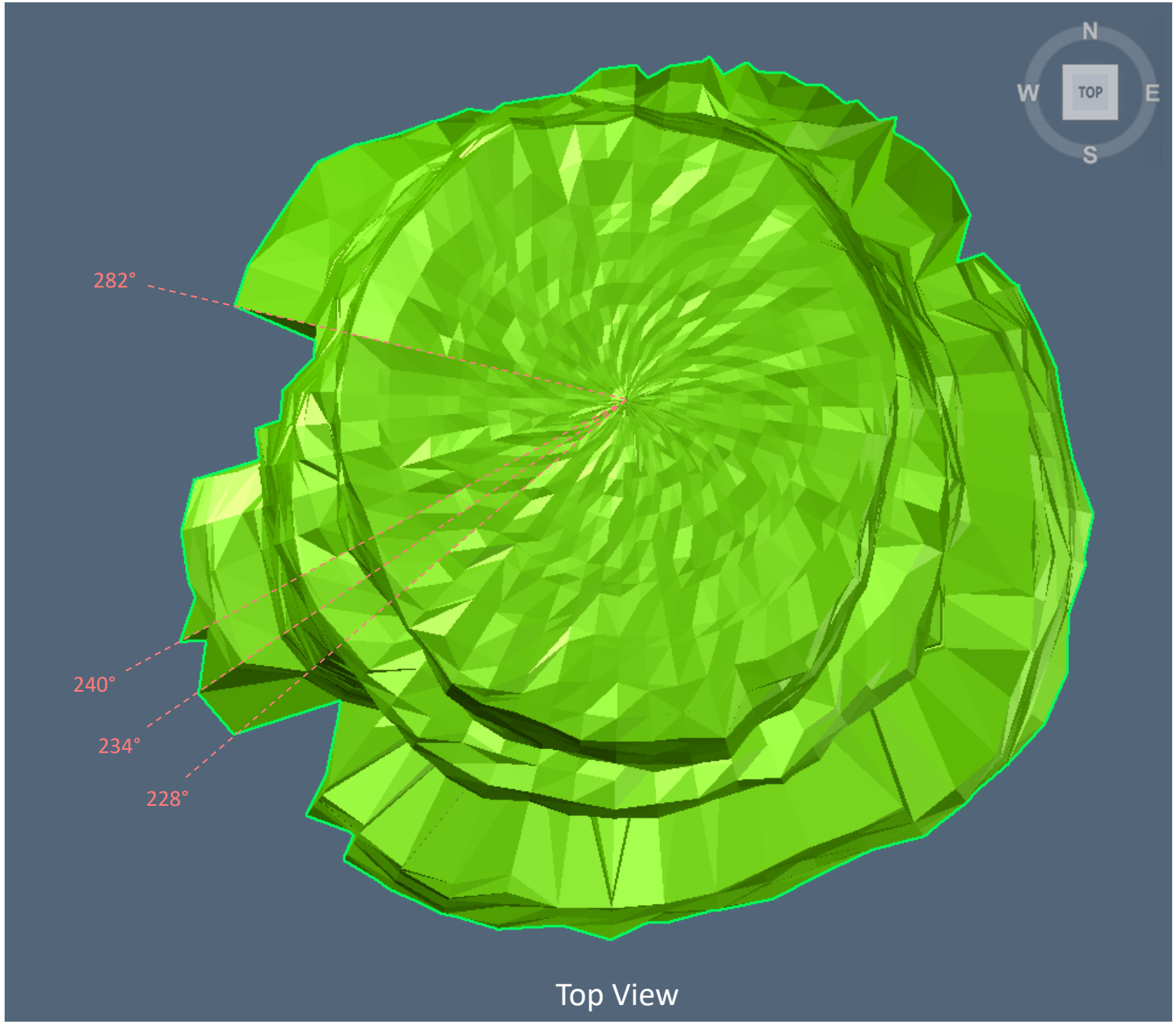
11-2023 Sonar Survey

- 5° down-tilted shots from 2900’
- Raw sonar data points shown in yellow



04-2024 Sonar Survey

- 3° down-tilted shots from 2900’
- Higher resolution achieved in the areas of interest
- Final sonar interpretation includes extensions at 228°-240° and 282°



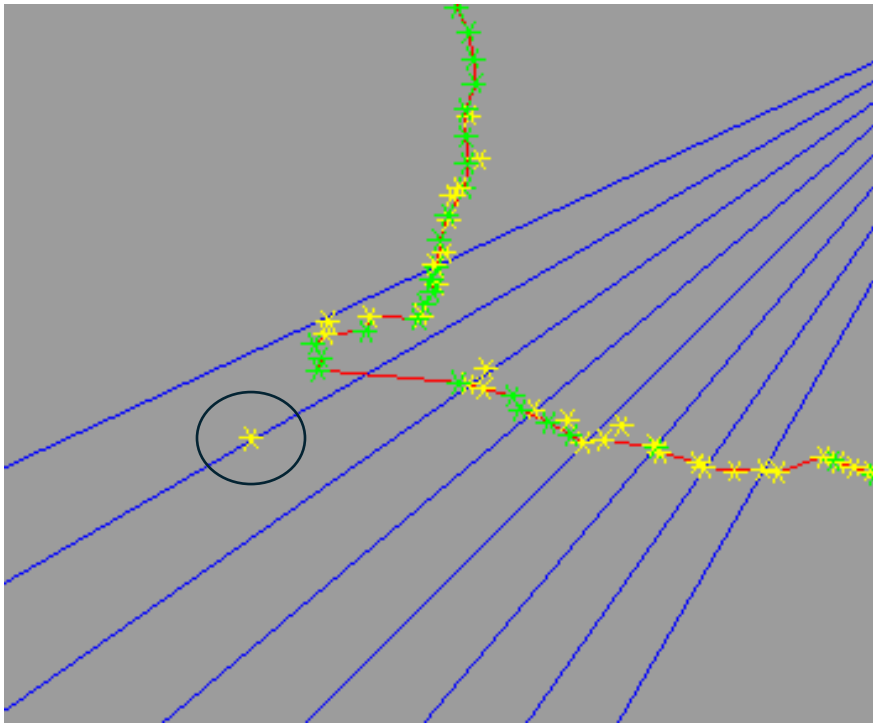
ATTACHMENT 2

Sonic Surveys Sonar Survey Evaluation (May 2, 2024)

Westlake Chemicals – PPG No. 007B **Protrusion assessment**

Operation No. 1 – 2022.03.11

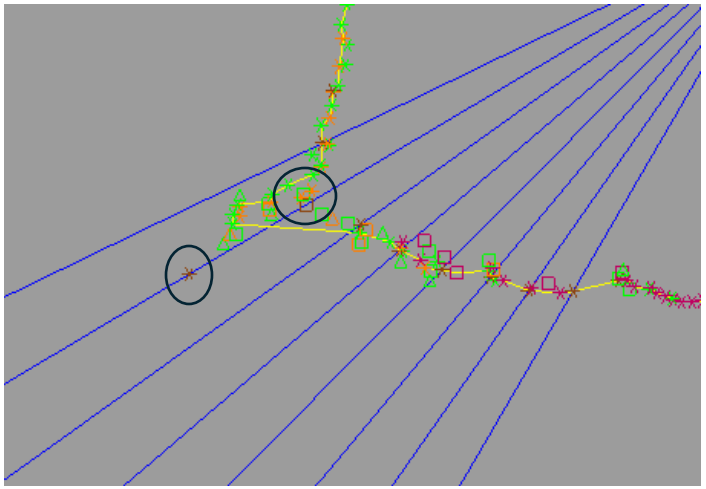
- **240-degrees does show a protrusion going downward.**
- **The signal did not indicate the same protrusion an the stations either side. It was thought to be a reflective signal, so it was not chosen.**



Westlake Chemicals – PPG No. 007B **Protrusion Assessment**

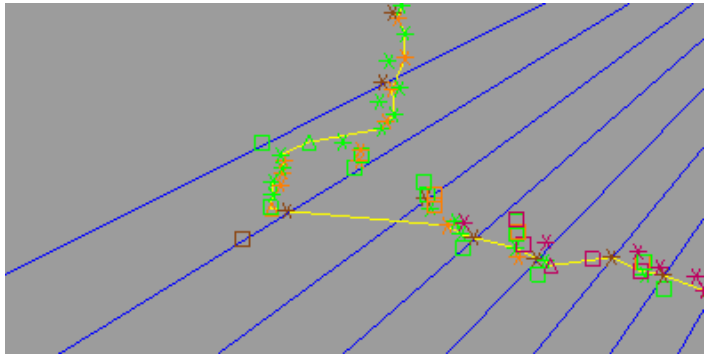
Operation No. 2 – 2022.11.02

- At 240 degrees the protrusion is visible. There is also a second signal on the log trace that fall in with some of the horizontals. This signal was eliminated as it was believed to be a reflection.



240 - Degrees

- At 246 degrees there appears a double signal as well that goes deeper. The first signal, which presented as the strongest signal, was chosen. This signal fell in line with the horizontals and the secondary was thought to be a reflective echo.

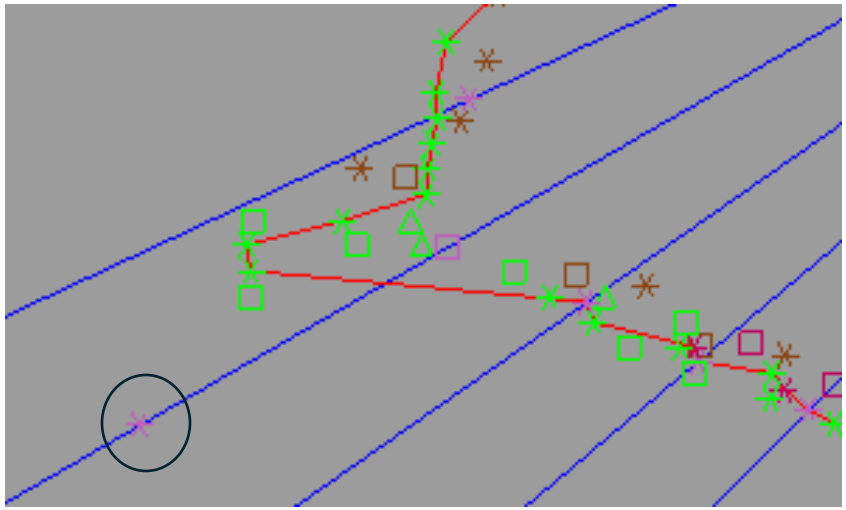


246-Degrees

Westlake Chemicals – PPG No. 007B

Operation No. 3 – 2023.01.11

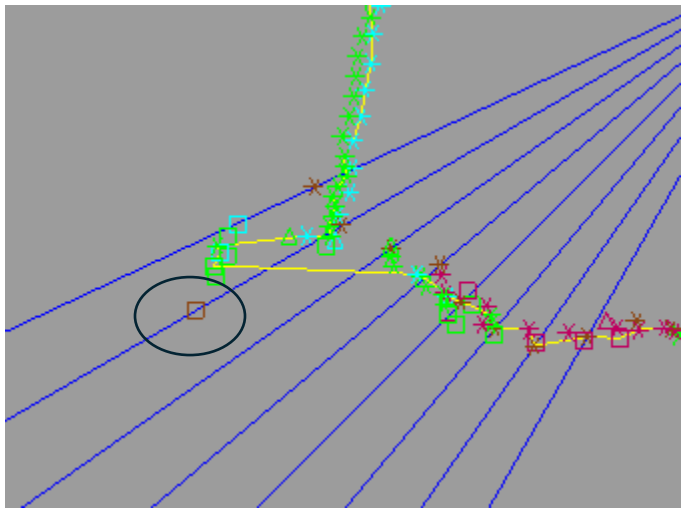
Protrusion Assessment



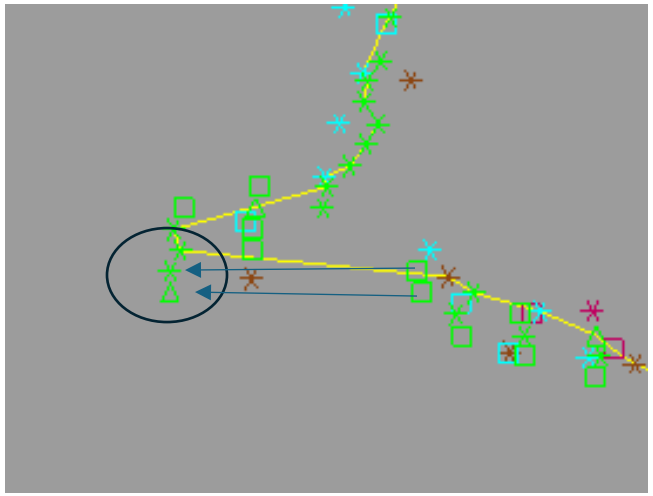
- 240 degrees the protrusion is present.
- There is a double signal on the trace.
- The signal was assumed to be a reflection and not chosen.

Westlake Chemicals – PPG No. 007B **Protrusion Assessment**

Operation No. 4 – 2023.02.01



Operation performed 2023.02.01 shows some of the same issues as the previous. There are tilt angles that show the anomaly, but because the tilt angles are done on 5-degree tilts it does not show the extent of the protrusion.



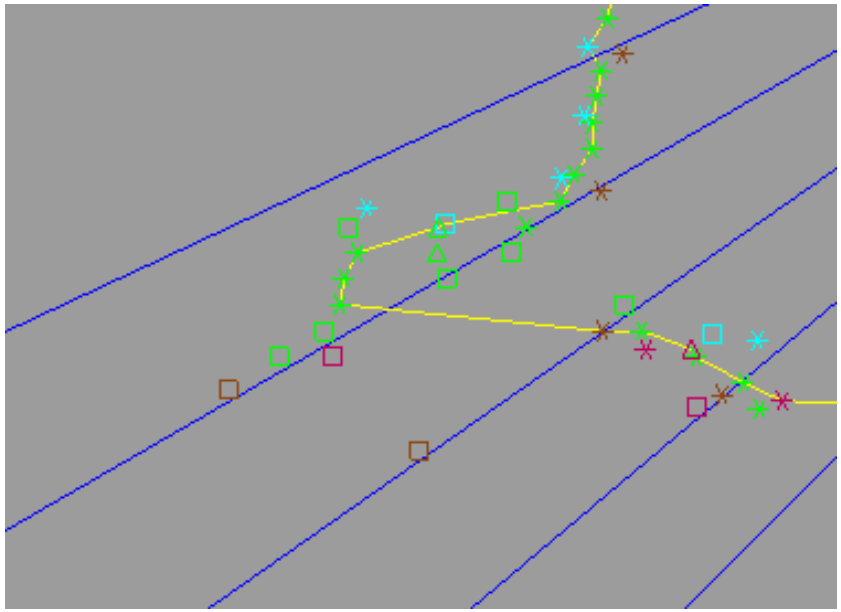
At 240 degrees the angle shot does not show as deep into the protrusion. The horizontal shots do indicate that the wall could extend beyond the chosen points. There are double signals in the traces on the horizontals at the depths of 3050 through 3055 feet.

Westlake Chemicals – PPG No. 007B

Protrusion Assessment

Operation No. 5 – 2023.03.16

- Operation No. 5 shows to signals that protrude downward. Both signal traces included two signals. The stronger signal was chosen as it followed along with the previous surveys.
- The horizontals indicate a double signal on the traces at the depths 3050 and 3055 feet. This also indicates that there could be an opening.

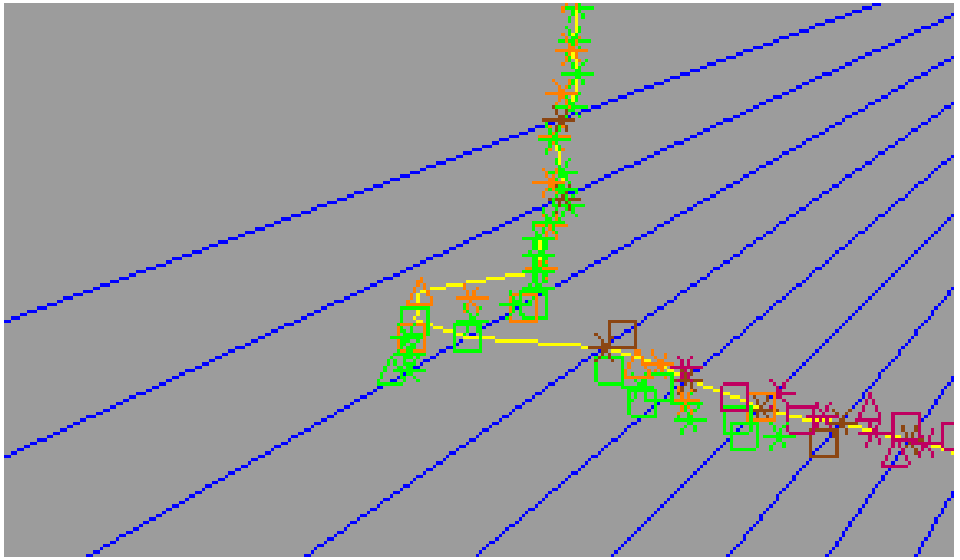


Westlake Chemicals – PPG No. 007B

Protrusion Assessment

Operation No. 6 – 2023.07.26

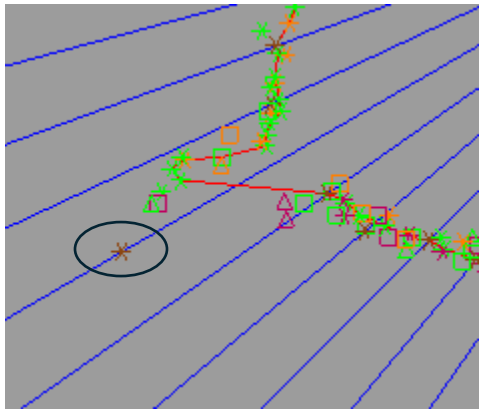
Operation No. 6 does not show a good indication of the protrusion at 240 degrees. The tilt angles in this area are hitting in the same areas as the horizontals. Because these tilts are performed at the tilt of 5 degrees, this does not allow for a good view inside of the downward protrusion.



Westlake Chemicals – PPG No. 007B

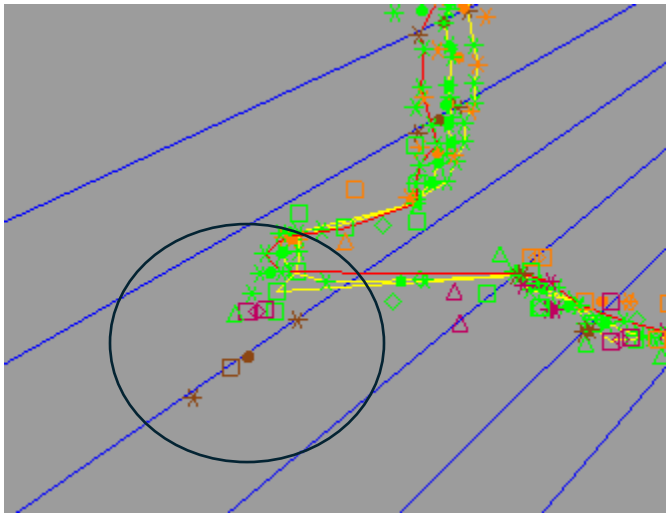
Protrusion Assessment

Operation No. 7 – 2023.11.02



- Operation No. 7 shows a good indication of the protrusion at 240 degrees.
- This data point was not chosen based on the previous sonars.
- Because the tilts were performed at 5-degree tilts, this only gives one data point to correlate to.

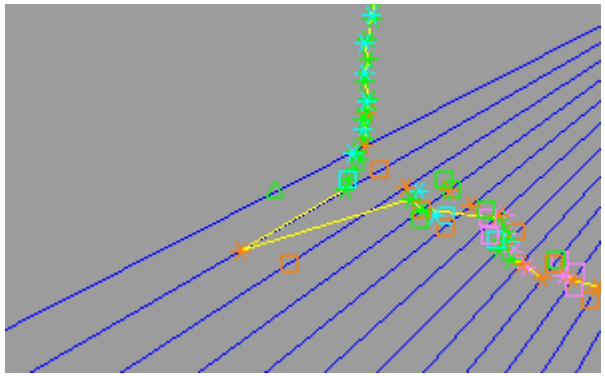
These data points are present from 240-246 degrees.



Westlake Chemicals – PPG No. 007B

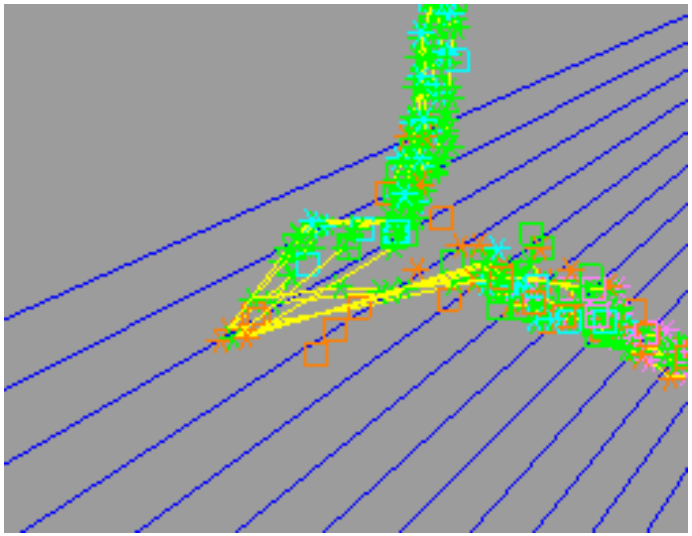
Protrusion Assessment

Operation No. 8 – 2024.04.15



- 228 degrees – The protrusion starts to become present.
- This survey the down angles were taken on 3-degree tilt angles. This allowed for better coverage of the void.

- The downward protrusion is present in the direction between 228 degrees and 249 degrees.



Westlake Chemicals – PPG No. 007B **Protrusion Assessment**

Summary

The sonar surveys on PPG No. 007B have been done using the same depth stations and tilt angles since Operation No. 1. This allows for consistency in the surveys and makes comparison easier. During operation No. 8, performed 2024.04.15, Sonic Surveys changed the downward survey angles at the depth of 2900 feet from 5 degrees to 3 degrees. This was done to show more detail in the foot that goes from 282 degrees to 69 degrees. During this operation, the 3-degree tilts allowed more detail to show on the section between 228 degrees to 249 degrees. This indicates another small protrustion in the direction of 228 degrees to 249 degrees.

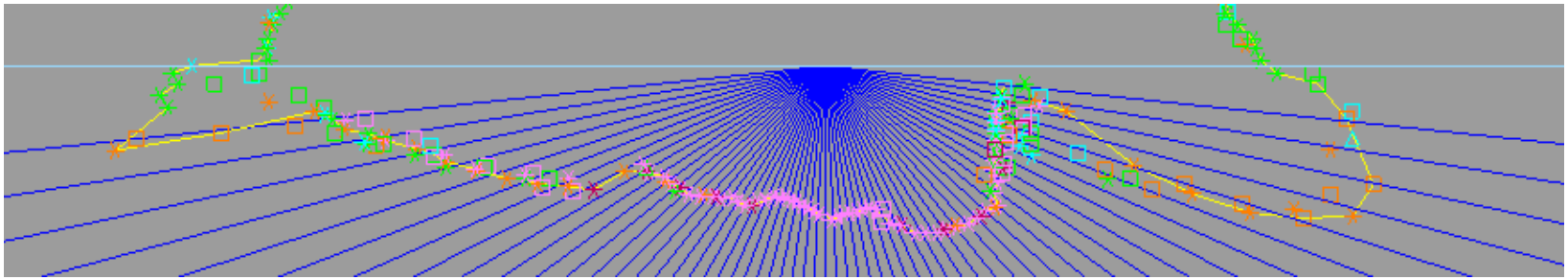
The final assessment proves that there is and has been a protrusion in the bottom of the cavern at the depth of 3050 through 3070 feet. This was not captured clearly because the angle stations were taken on 5-degree tilts.

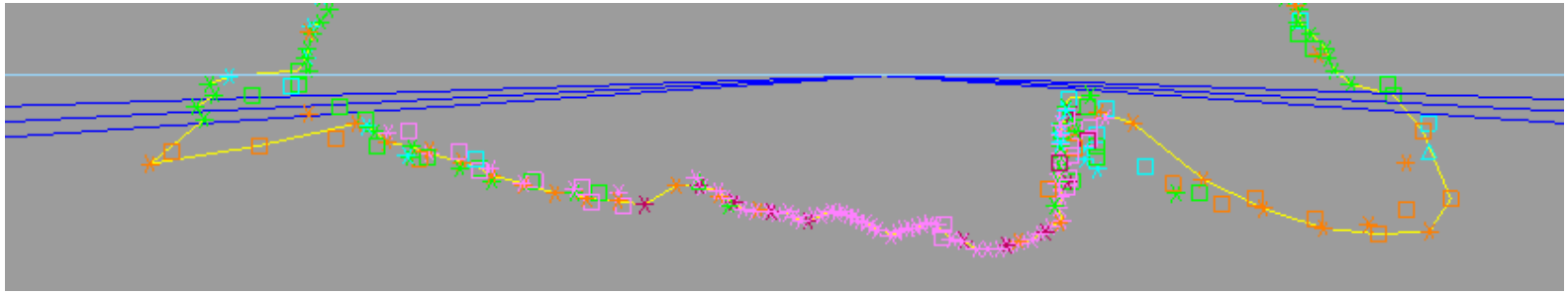
Westlake Chemicals – PPG No. 007B **Protrusion Assessment**

Future Sonars

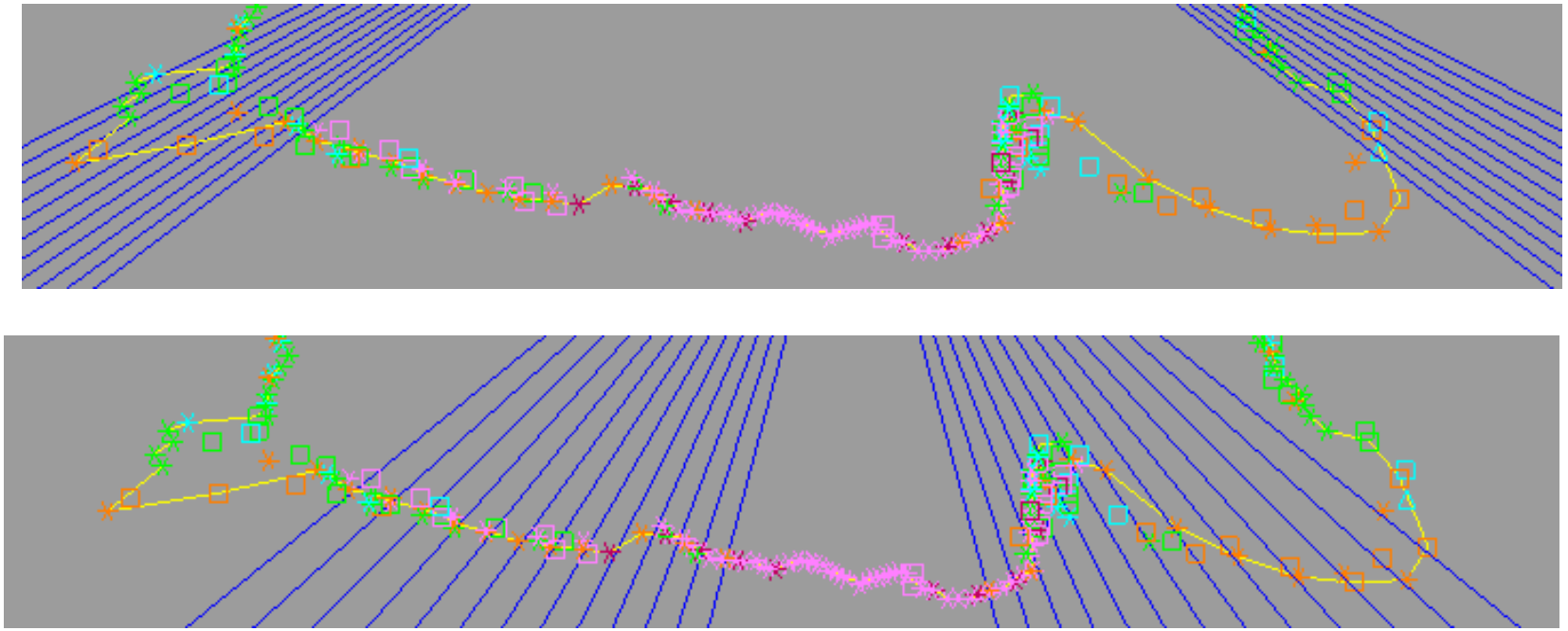
- Change the lowest axial tilt station from 3050 feet to 3035 feet.
  - Tilt angles at 3 degrees from 0 – 84 degrees.
  - Tilt angles at 1 degree from 86 to 88 degrees.

This will allow for some of the angles to get into the void to verify the void with the horizontals.





- Continue the axial tilt station at 2900 feet.
    - Tilt angles at 3-degrees from 15-51 degrees.
    - Tilt angles at 1-degree from 53-63 degrees.



Sonic Surveys has taken angle stations on every part of the cavern, both the upper and lower chamber. The protrusion at 228-249 degrees at the depth between 3050 and 3070 feet was seen prior. It was misinterpreted as a reflection signal because of the double signals from the wall and floor. With the closer angles taken on the last sonar Sonic Surveys were able to see into the protrusion and identify it clearly.