

FIELD REPORT · NOV 15, 2026

Trip 6: Okotoks and the Foothills County roads

One day · Wheatland & Foothills County, Alberta · 7 of 7 stops done · one collector, one phone

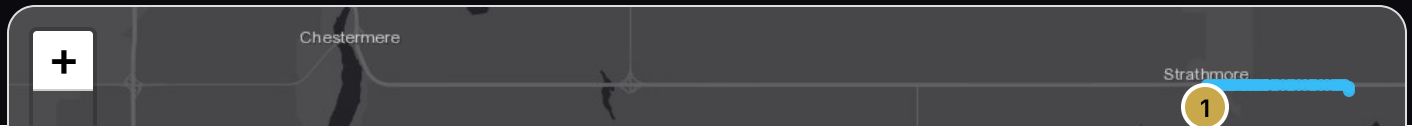
A one-day Ground Boots run out of Wheatland County: south on Hwy 817 to the Bow River at Carseland, west along Hwy 547 into Foothills County, a bike ride on the Okotoks river pathways, the 338 Ave crossing at Hwy 2, and home along Hwy 552 and the county gravel. The phone sat on a dash mount the whole way, scoring road roughness and Rogers signal every few seconds. A widget on the home screen counted what went past the windshield, and every photo went through a plant identifier. The plan changed on the road by voice, and this report shows what was actually done.

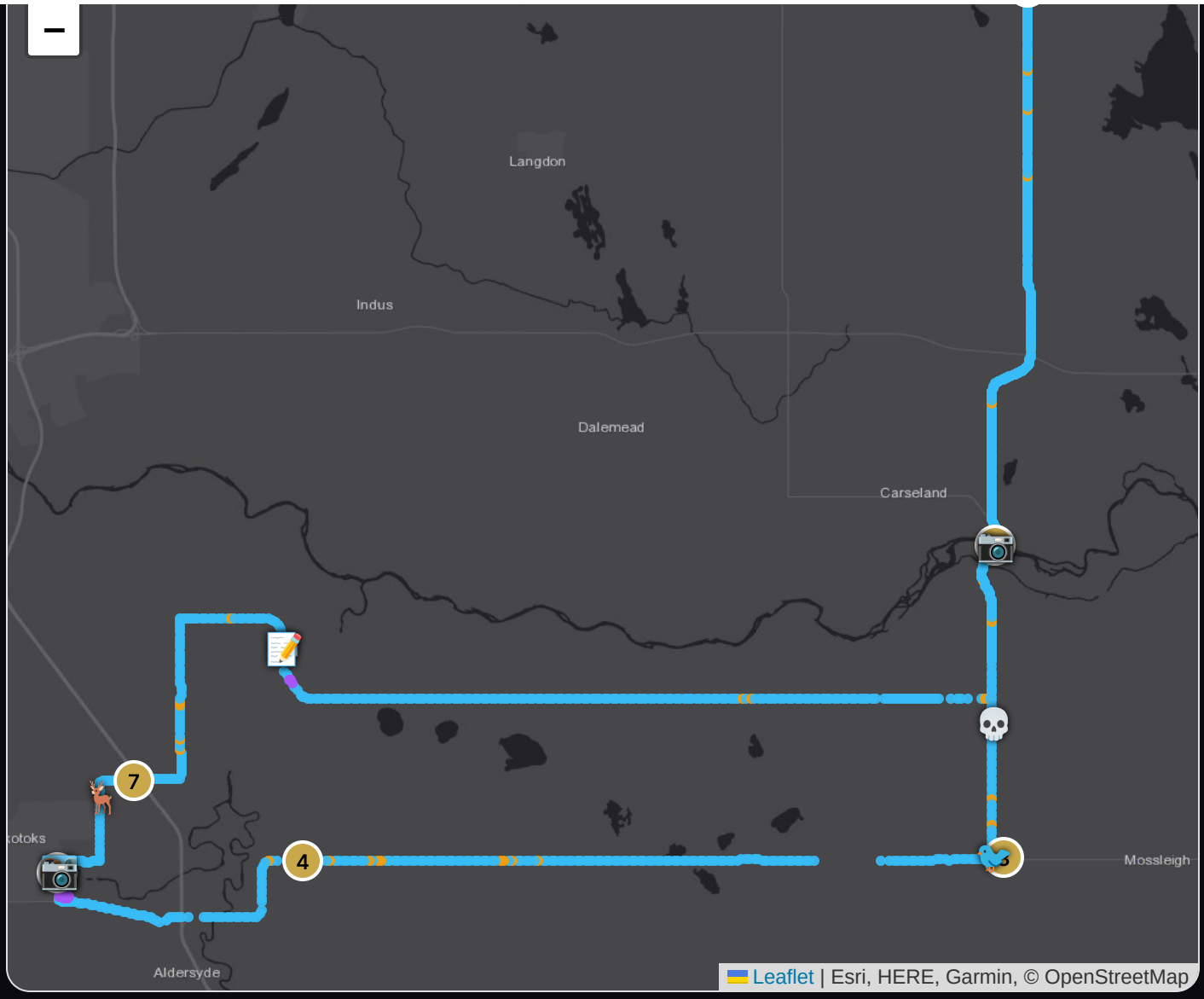
~162 km	975	1,096	7	7
DRIVEN & LOGGED	ROUGHNESS READINGS	SIGNAL READINGS	STOPS DONE	FIELD RECORDS

3	3	117 min
PHOTOS · PLANT IDS	WIDGET TALLIES	TRAIL RIDE

Map

TRACK · STOPS · FINDS





smooth (0+) · fair (15+) · rough (35+) · very rough (60+) · bike / walk

numbered = stops · 🚲 trail ride · 💀🦌🪧 tallies · 📷 photo

The day

TIMELINE

08:55 🚗 **Rolling**

Drive recorder on. Hwy 817 south out of Wheatland County.

09:04 ✅ **1. Hwy 817 → southbound (Wheatland)**

wildlife (none seen)

09:33 ✅ **2. Bow River at Carseland (Hwy 24 bridge)**

water body, wildlife (none seen), scenic

09:42 💀 **Roadkill**

Hwy 24 at 104 km/h (mapped limit 100)

09:48 ✅ **3. Hwy 547 → westbound, pass 1**

wildlife (none seen)

09:53 🐦‍⬛ **Birds**

Raven

10:06 ✅ **4. 128 Street E → northbound (county gravel)**

wildlife (none seen)

10:51 🚲 **Trail ride starts**

Parked on Southbank Blvd, Okotoks. Out on the Sheep River pathways.

12:03 ✅ **Trail ride 12:01**

wildlife (none seen), scenic, trail, flora

12:30 🗣️ **Route changed by voice**

Five planned stops dropped; new way home along Hwy 552.

12:49 🏁 **Trail ride ends**

Back at the truck.

12:55 🦌 **Deer**

48 Street E at 59 km/h (mapped limit 60)

12:58 ✅ **7. 338 Ave E at the Hwy 2 crossing**

road damage (none seen), general (none seen)

13:11 🪧 **Limit ≠ sign**

Hwy 552 at 72 km/h (mapped limit 100)

13:11 📝 **General**

There was a 65 speed limit at the top of this hill

13:55 🏠 **Home**

~162 km driven.

Findings

The roads were in good shape

975 roughness readings from the dash mount, and not one rated rough. Paved roads had a median score of **7**. The gravel home along 306 Ave E and Township Road 212 came in at **8**, barely different. The bumpiest single reading was **26** on Hwy 817 at 09:15, still only "fair" (rough starts at 35). Dry and unfrozen, the gravel drove like pavement.

A sign the map doesn’t know about

At 13:11 on Hwy 552 the widget logged **“limit ≠ sign”**: the mapped limit is **100 km/h**, and the note four seconds later says *“There was a 65 speed limit at the top of this hill”*. That 65 sign isn't in the OpenStreetMap data, so the apps built on it (Ground Boots' own heads-up display included) show 100 there. It's the kind of thing a road crew or a map editor can act on the same day.

The Bow, open and low

At Carseland the river ran **slightly turbid** with no ice and no waterfowl. The bank is willow and river alder under the Hwy 24 bridge, all bare by mid-November. The plant identifier picked out alder by the small woody cones still on the twigs, which willow doesn't keep. Five days after Trip 5 stood at the same bank, nothing had frozen yet. From orbit the Bow box held 34.3 ha of open water on 2026-08-15 and 24.2 ha on 2026-11-08, and the Sheep River by the trail 11 ha of open water on 2026-08-15 and 5.8 ha on 2026-11-08: the drop to low winter flow.

A first: a trail ride inside a trip

Halfway through, the route got a new stop made on the spot: a bike ride on the Sheep River pathways in Okotoks. The trail was **dirt**, moderate, with no obstacles, signage **faded**, condition 4/5. The bank under the bridge is brome-type grass on riprap fill, the kind that spreads along the path.

Rogers held on

1,035 drive readings, median **-105 dBm**. 142 (14%) were at the dead-zone line. The weakest road was **306 Avenue E**: 21 of 48 readings there dropped out.

Quiet out there

Wildlife was asked for at five stops and wasn't there at any of them. Over the whole day the tally widget caught one **roadkill** on Hwy 24, one **deer** on 48 Street E, and there was one **common raven** flying over grassland. Air quality from the Calgary station was AQI 45–53 all day.

Stop by stop

EVERY RECORD

Green numbered dots on a photo are what the plant identifier pointed at. Open “What the identifier pointed at” for the key.

1

Hwy 817 → southbound (Wheatland)

Done 09:04 · asked for road surface, wildlife, connectivity

📶 -94 dBm median | 〰 road smooth (6.5)

drive recorder, 37 readings within 1.5 km

🐾 Wildlife | looked · none seen | 09:04

2 Bow River at Carseland (Hwy 24 bridge)

Done 09:33 · asked for water, wildlife, scenic

📶 -111 dBm median | 〰 road smooth (8) | drive recorder, 44 readings within 1.5 km

🐾 Wildlife

looked · none seen 09:33

💧 Water Body

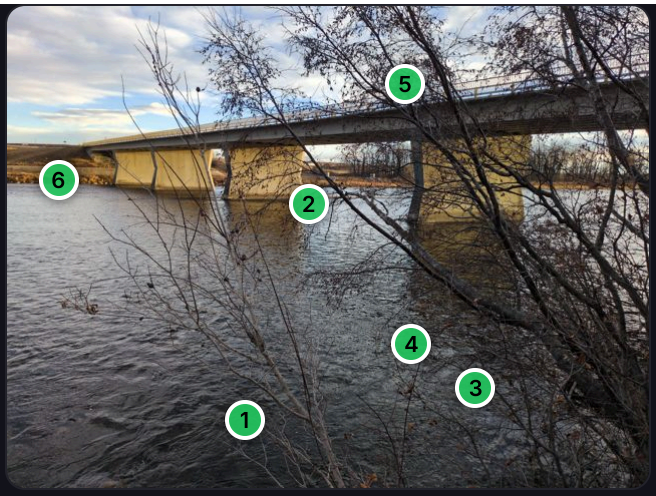
09:32 · ±3 m

Water: **River** | Clarity: **Slightly turbid** | Waterfowl: **None** | Shore access: **Moderate** | Ice cover: **no**

🏞️ Scenic

09:33 · ±6 m

Feature: **River** | Access: **Short walk** | Crowd: **Empty** | Scenic /10: **6**

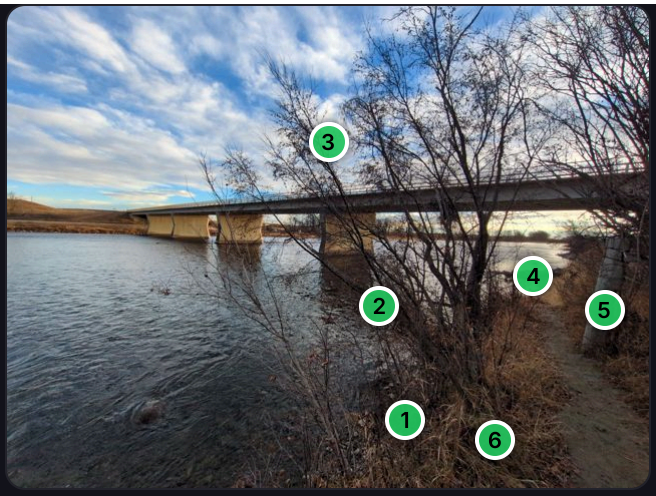


🌿 Plant ID from this photo

- **River alder (thinleaf / mountain alder)** *Alnus incana* · low
- **Grasses (dormant bank and verge cover)** *Poaceae* · medium
- **Willow** *Salix sp.* · low
- **Poplar / aspen (far bank and floodplain trees)** *Populus sp.* · low

The vegetation framing this shot is a leaning, multi-stemmed riparian shrub-tree growing right at the water's edge of the Bow River, photographed dormant in mid-November.

1. **Persistent cone-like fruits** Small hard dark strobiles still attached to bare twigs in November are the single most alder-like trait; willow and poplar shed their catkins entirely.
2. **More strobiles on upper twigs** The same blackish pea-sized structures recur along the upper branches, suggesting a real fruiting character rather than insect galls or stuck debris.
3. **Smooth pale grey stem** The arching trunk is smooth and light grey without peeling papery bark or deep furrows, matching alder rather than mature birch or poplar.
4. **Multi-stemmed leaning habit** Several slender stems rise from a common base at the bank and lean out over the current, the typical form of a bank-anchored alder or willow clump shaped by ice and high water.



🌿 Plant ID from this photo

- **Willow (shrub willow, riparian)** *Salix sp.* · low
- **Poplar or aspen (bank gallery tree)** *Populus sp.* · low
- **Dormant prairie and verge grasses** *Poaceae* · medium
- **Unidentified dry forb stems on the bank bench** *Asteraceae* · low

The plant filling the right half of the frame is a multi-stemmed riparian shrub growing on the cobble bank of a large prairie river, almost certainly a willow (Salix sp.) — slender, flexible, upward-arching stems rising from a clumped base right at the high-water line, with only a scatter of narrow, dried leaves left on 15 November.

1. **Multi-stemmed clumped base** Several slender stems rising together from one root crown at the gravel edge is the classic shrub-willow growth form on a river bar, as opposed to a single-trunked tree.
2. **Long whippy twigs** Fine, flexible, strongly ascending twigs that taper without heavy side branching are typical of Salix and of flood-scoured riparian shrubs generally.
3. **Narrow dried leaves still attached** The few leaves left in the upper crown are small and narrow-elliptic, consistent with willow; the sparse mid-November retention matches normal leaf drop for this date in southern Alberta.
4. **Cobble bank at water line** The shrub is rooted in rounded river cobble right at the

5. Marcescent brown leaves A few dead brown leaves still clinging in mid-November confirm a deciduous broadleaf shrub caught after leaf drop, which is why species-level ID is not defensible from this frame.

6. Tawny bank grass Cured, straw-coloured graminoid cover on the far bank and bridge approach is dormant Poaceae, recordable only at family rank in this condition.

active channel margin — the flood-disturbed zone willows colonize first.

5. Pale smooth trunk at right edge A separate, larger stem with grey-green smooth bark at the frame edge indicates a poplar or aspen in the bank gallery behind the willow thicket.

6. Cured tan bunchgrass Dormant, straw-coloured grass and dry forb stems along the trail bench are the upland prairie/verge component above the riparian shrub line; identifiable only to family at this stage.

3 Hwy 547 → westbound, pass 1

Done 09:48 · asked for connectivity, road surface, road damage, wildlife

📶 -108 dBm median · 〰 road smooth (7)

drive recorder, 22 readings within 1.5 km

🐾 Wildlife looked · none seen 09:48

4 128 Street E → northbound (county gravel)

Done 10:06 · asked for road surface, road damage, ground truth, wildlife

📶 -102 dBm median · 〰 road smooth (8)

drive recorder, 21 readings within 1.5 km

🐾 Wildlife looked · none seen 10:06

7 338 Ave E at the Hwy 2 crossing

Done 12:58 · asked for road surface, road damage, general

📶 -102 dBm median · 〰 road smooth (7)

drive recorder, 27 readings within 1.5 km

🚧 Road Damage looked · none seen 12:58

📝 General looked · none seen 12:58

+ Along the way

Ad-hoc records and widget notes

🐦 Birds 09:53 · ±0 m

“Raven”

Group: **Other** · Species: **Common Raven** · Doing: **Flying** · Habitat: **Grassland**

📝 General 13:11 · ±7 m

“There was a 65 speed limit at the top of this hill”

Trail ride

SHEEP RIVER PATHWAYS, OKOTOKS



Added from the road with the app's new ➕ Add stop: a 🚲 Trail ride preset asks for trail, wildlife, birds, plants and views, and starts the bike recorder.

🥾 Trail 12:03 · ±1 m

Surface: **Dirt** · Difficulty: **Moderate** · Obstacles: **None** · Signage: **Faded** · Condition /5: **4**

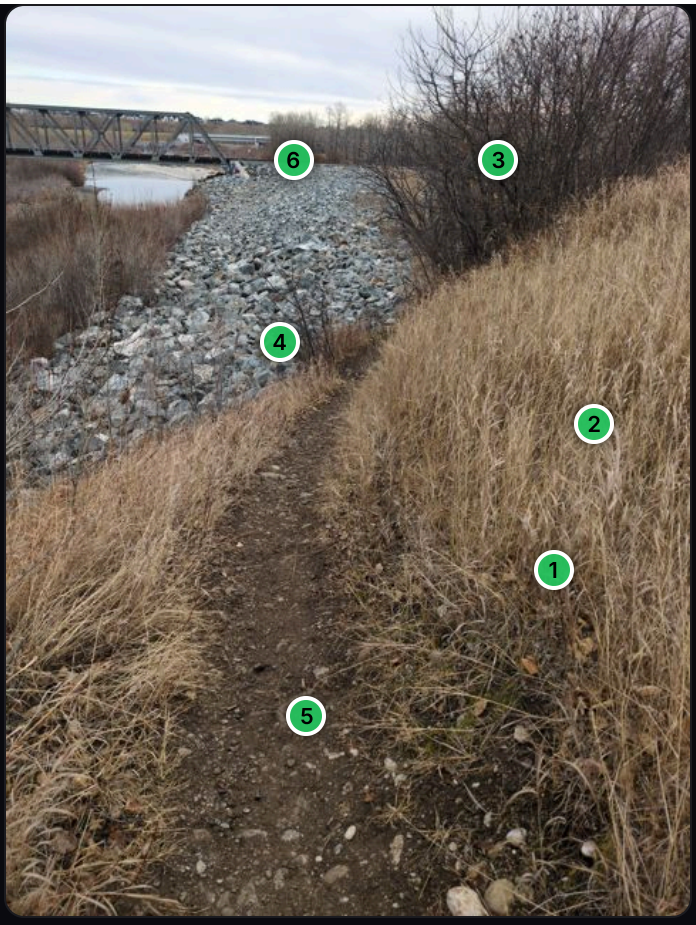
🐾 Wildlife looked · none seen 12:02

🏞️ Scenic 12:03 · ±1 m

Feature: **River** · Access: **Short walk** · Crowd: **Empty** · Scenic /10: **5**

🌿 Flora 12:03 · ±1 m

Plant: **Grass / Sedge** · Stage: **Fading** · Abundance: **Abundant**



🌿 Plant ID from this photo

Dry roadside/riparian grass verge (smooth brome-dominated) *Poaceae* · low

Willow (shrub thicket along bank) *Salix sp.* · low

Poplar / aspen (floodplain trees) *Populus sp.* · low

Mixed dry forbs in the verge (dead stems) *Asteraceae* · low

This is a late-season (mid-November) grass-dominated verge flanking a riprap-armoured river bank, with the pale straw-coloured sward on the right being the most prominent vegetation in the frame.

1. **Dense cured sward** A continuous, uniform straw-coloured grass sod blanketing the slope — sod-forming introduced grass rather than a bunchgrass mosaic.
2. **Persistent fine panicles** Thin nodding seed-head remnants still held above the sward in November; shattered, so florets cannot be counted.

3. Leafless shrub thicket Multi-stemmed, fine, reddish-brown twiggy shrubs along the bank break — the willow/dogwood/buffaloberry guild typical of Foothills riparian edges; no leaves or catkins to narrow it.

4. Riprap armour Quarried angular rock bank protection; the raw fill surface is what the aggressive introduced grasses and shrubs colonize first.

5. Bare trampled footpath Compacted gravelly trail cutting the sward — the disturbance corridor that spreads brome and quack grass seed along the bank.

6. Background poplar/aspen stand Grey leafless broadleaf trees with upright branching across the river — the Populus riparian gallery of the Sheep River valley.

Road by road

ROUGHNESS + SIGNAL

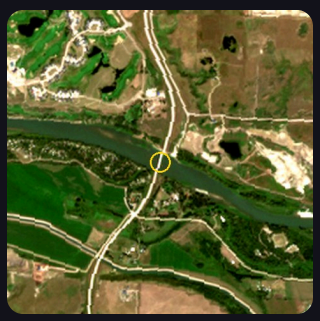
Every drive reading snapped to the nearest OpenStreetMap road, in driving order. Roughness is the dash-mount score: under 15 smooth, 15–35 fair, 35+ rough. Surface is what the map says, where it says anything.

ROAD	MAP SURFACE	KM LOGGED	ROUGHNESS (MEDIAN)	SIGNAL	DEAD
Hwy 1	asphalt	4.7	6 · max 11	-97 dBm	1
Hwy 817	asphalt	42.4	8 · max 26	-102 dBm	16
Hwy 24	—	22.6	8 · max 22	-108 dBm	25
Hwy 547	asphalt	34.4	8 · max 20	-108 dBm	38
Hwy 7	asphalt	1.0	7 · max 14	-99 dBm	
Hwy 2A	—	3.9	7 · max 10	-96 dBm	1
32 Street E	asphalt	1.2	8 · max 10	-88 dBm	
Southbank Boulevard	asphalt	0.2	7.5 · max 13	-99 dBm	
370 Avenue E	asphalt	0.7	7 · max 10	-93 dBm	
48 Street E	asphalt	3.0	5 · max 8	-106 dBm	2
338 Avenue E	paved	2.9	7 · max 11	-103 dBm	4
80 Street E	paved	6.3	8 · max 21	-98 dBm	7
Hwy 552	—	19.7	7 · max 16	-103 dBm	12
306 Avenue E	—	7.9	8 · max 16	-112 dBm	21
Township Road 212	—	6.4	8 · max 23	-110 dBm	10

From orbit SENTINEL-2

The clearest Sentinel-2 pass in mid-summer and in the weeks before the trip, 2.4 km square, 10 m true colour, site ringed in yellow. Same spot, two seasons.

Bow River at Carseland

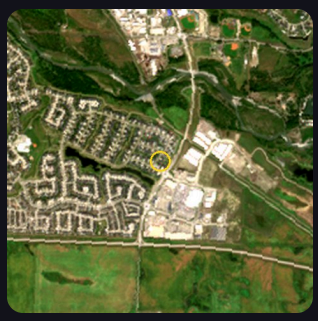


Mid-summer: 2026-08-15 · 100% clear · open water 34.3 ha



Trip week: 2026-11-08 · 100% clear · open water 24.2 ha

Sheep River pathways, Okotoks (trail ride)

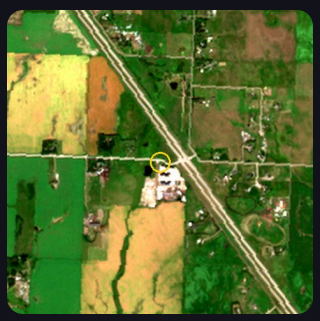


Mid-summer: 2026-08-15 · 100% clear · open water 11.0 ha

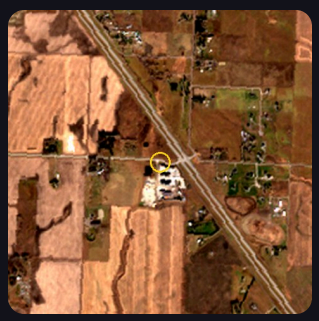


Trip week: 2026-11-08 · 100% clear · open water 5.8 ha

338 Ave E at the Hwy 2 crossing



Mid-summer: 2026-08-15 · 100% clear

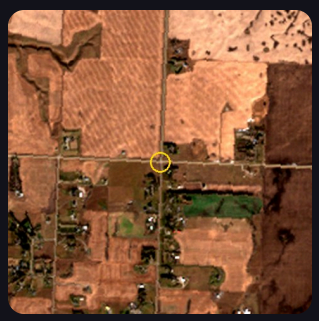


Trip week: 2026-11-08 · 100% clear

128 Street E at Hwy 547 (stop 4)



Mid-summer: 2026-08-15 · 100% clear



Trip week: 2026-11-08 · 100% clear

What went wrong, and what’s left out

- **The route changed on the road.** Around 12:30 the rest of the plan was cut by voice: 5. 306 Ave E & 32 St E, 6. Dunbow Road roundabout, 8. Sheep River, downtown Okotoks, 9. Highwood River at Hwy 547 bridge, 10. Hwy 547 → eastbound, pass 2 were dropped, and the way home became Hwy 552 east. The drive then stayed on 552 to its end and carried on along the 306 Ave E / Township Road 212 gravel to Hwy 24.
- **Four wildlife records were forced.** The stop form wouldn't submit without wildlife details, so at stops 1–4 the collector filled in what wasn't there. All four were corrected to “looked, none seen” the same day, along with one made-up activity at the Bow, and the form was fixed (Ground Boots v1.64–v1.65). Their notes and the two voice memos about it are left out here.
- **128 Street E wasn't driven.** Stop 4 was logged at the Hwy 547 junction, so there's no gravel reading for 128 St itself.
- **The ride track is patchy.** The bike recorder ran in pieces (43 fixes over 117 min) and missed most of 10:53–11:54, so the ride map shows where the ride went, not every turn. Distance between fixes is about 3.0 km.
- **Masked for privacy:** 0 readings within 3 km of a private address aren't drawn. They still count in the totals.

Data

Full report (PDF) | Field records (CSV) | Track: roughness + signal (CSV) | Everything (GeoJSON)