

## Universal Hemp Panel

### ANALYZED BY:

Anresco Laboratories  
1375 Van Dyke Avenue,  
San Francisco, CA 94124  
DEA# PA0202945

### CUSTOMER:

Surly Brewing Company  
4811 Dusharme Dr  
Brooklyn Center, MN 55429

### MANUFACTURER:

Surly Brewing Company  
4811 Dusharme Dr  
Brooklyn Center 55429  
FDA: 13566238728  
LPMFR-A25-000046



### SAMPLE INFORMATION

**Sample No.:** 1433644  
**Product Name:** Surly Brewing Double Take Tropical POG  
**Matrix:** Edible (Carbonated Beverage)  
**Lot #:** MT063

**Production Date:** 07/30/2026  
**Date Collected:** 08/03/2026  
**Date Received:** 08/03/2026  
**Date Reported:** 08/07/2026  
**Expiration Date:** 07/30/2027

### TEST SUMMARY

**Cannabinoid Profile:**  Tested  
**Pesticide Residue Screen:**  Pass  
**Heavy Metal Screen:**  Pass  
**Mycotoxin Screen:**  Pass

**Microbiological Screen:**  Pass  
**Residual Solvent Screen:**  Pass  
**Foreign Material:**  Pass

### Cannabinoid Profile

08/05/2026

**Method:** MF-CHEM-15  
**Instrument:** Liquid Chromatography Diode Array Detector (LC-DAD)  
**Limit of Detection** 0.0008 mg/g  
**Limit of Quantitation** 0.0025 mg/g  
**Measurement of Uncertainty Average:**  $\pm 6.3\%$

| Cannabinoid                | mg/g   | mg/ml  | %       | mg/serving | mg/package | Labeled mg/serving | % Difference |
|----------------------------|--------|--------|---------|------------|------------|--------------------|--------------|
| $\Delta 8$ -THC            | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| $\Delta 9$ -THC            | 0.0218 | 0.0218 | 0.00218 | 10.30      | 10.30      | 10                 | 2.98         |
| $\Delta 9$ -THCA           | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| THCV                       | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| THCVA                      | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBD                        | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBDa                       | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBC                        | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBCa                       | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBDV                       | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBG                        | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBGa                       | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| CBN                        | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| Exo-THC                    | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| (6aR,9R)- $\Delta 10$ -THC | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| (6aR,9S)- $\Delta 10$ -THC | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| 9(R)-Hexahydrocannabinol   | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| 9(S)-Hexahydrocannabinol   | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| $\Delta 8$ -THC-O-Acetate  | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| $\Delta 9$ -THC-O-Acetate  | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| THC-O-Phosphate            | NT     | NT     | NT      | NT         | NT         | -                  | -            |
| $\Delta 8$ -THCP           | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| $\Delta 9$ -THCP           | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| Total $\Delta 9$ -THC      | 0.0218 | 0.0218 | 0.00218 | 10.30      | 10.30      | -                  | -            |
| Total THC                  | 0.0218 | 0.0218 | 0.00218 | 10.30      | 10.30      | -                  | -            |
| Total CBD                  | ND     | ND     | ND      | ND         | ND         | -                  | -            |
| Total Cannabinoids         | 0.0218 | 0.0218 | 0.00218 | 10.30      | 10.30      | -                  | -            |

| Cannabinoid                   | mg/g     | mg/ml  | %       | mg/serving | mg/package | Labeled mg/serving | % Difference |
|-------------------------------|----------|--------|---------|------------|------------|--------------------|--------------|
| Sum of Cannabinoids           | 0.0218   | 0.0218 | 0.00218 | 10.30      | 10.30      | -                  | -            |
| <b>Serving Weight (g)</b>     | 472.3851 |        |         |            |            |                    |              |
| <b>Package Weight (g)</b>     | 472.3851 |        |         |            |            |                    |              |
| <b>g/ml Conversion Factor</b> | 0.9987   |        |         |            |            |                    |              |

Total Δ9-THC = Δ9-THC + (0.877 \* THCA)

Total THC = Δ8-THC + Δ9-THC + (0.877 \* THCA)

Total CBD = CBD + (0.877 \* CBDA)

Total Cannabinoids = Σ (neutral cannabinoids) + [0.877 \* Σ (acidic cannabinoids)]

## Microbiological Screen ✓ Pass

08/07/2026

**Measurement of Uncertainty Average:** APC ±35.6%, Y&M ±31.3%

| Analyte                              | Findings | Units | Method             | Limit  | Status |
|--------------------------------------|----------|-------|--------------------|--------|--------|
| Salmonella                           | ND       | /25g  | AOAC 2016.01       | ND     | Pass   |
| STEC                                 | ND       | /25g  | MF-MICRO-18        | ND     | Pass   |
| Aspergillus flavus                   | ND       | /25g  | MF-MICRO-14        | ND     | Pass   |
| Aspergillus fumigatus                | ND       | /25g  | MF-MICRO-14        | ND     | Pass   |
| Aspergillus niger                    | ND       | /25g  | MF-MICRO-14        | ND     | Pass   |
| Aspergillus terreus                  | ND       | /25g  | MF-MICRO-14        | ND     | Pass   |
| Listeria Species                     | ND       | /25g  | AOAC 2016.07       | ND     | Pass   |
| Total Aerobic Plate Count            | 0/10     | cfu/g | FDA BAM            | 100000 | Pass   |
| Total Coliforms                      | 0/10     | cfu/g | FDA BAM - ECC Agar | 100    | Pass   |
| E. Coli                              | ND       | /1g   | FDA BAM Modified   | ND     | Pass   |
| Total Enterobacteriaceae             | <1       | cfu/g | CMMEF - VRBG Agar  | ND     | Pass   |
| Staphylococcus aureus                | <1       | cfu/g | AOAC 2003.07       | ND     | Pass   |
| Bile-Tolerant Gram-Negative Bacteria | <1       | cfu/g | CMMEF - VRBG Agar  | ND     | Pass   |
| Total Yeast and Mold                 | <1       | cfu/g | AOAC 2014.05       | 10000  | Pass   |

## Pesticide Residue Screen ✓ Pass

08/07/2026

**Method:** MF-CHEM-13

**Instrument:** Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

**Measurement of Uncertainty Average:** ±21.40%

| Analyte             | LOD/LOQ (ppm) | Findings (ppm) | Limit (ppm) | Status |
|---------------------|---------------|----------------|-------------|--------|
| Abamectin           | 0.015/0.05    | ND             | 0.05        | Pass   |
| Acephate            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Acequinocyl         | 0.003/0.01    | ND             | 0.01        | Pass   |
| Acetamiprid         | 0.003/0.01    | ND             | 0.01        | Pass   |
| Aldicarb            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Azoxystrobin        | 0.003/0.01    | ND             | 0.01        | Pass   |
| Bifenazate          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Bifenthrin          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Boscalid            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Captan              | 0.250/0.7     | ND             | 0.7         | Pass   |
| Carbaryl            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Carbofuran          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Chlorantraniliprole | 0.003/0.01    | ND             | 0.01        | Pass   |
| Chlordane           | 0.020/0.06    | ND             | 0.06        | Pass   |
| Chlorfenapyr        | 0.015/0.05    | ND             | 0.05        | Pass   |
| Chlorpyrifos        | 0.003/0.01    | ND             | 0.01        | Pass   |
| Clofentezine        | 0.003/0.01    | ND             | 0.01        | Pass   |
| Coumaphos           | 0.003/0.01    | ND             | 0.01        | Pass   |
| Cyfluthrin          | 0.015/0.05    | ND             | 0.05        | Pass   |
| Cypermethrin        | 0.015/0.05    | ND             | 0.05        | Pass   |
| Daminozide          | 0.003/0.01    | ND             | 0.01        | Pass   |
| DDVP (Dichlorvos)   | 0.003/0.01    | ND             | 0.01        | Pass   |
| Diazinon            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Dimethoate          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Dimethomorph        | 0.003/0.01    | ND             | 0.01        | Pass   |
| Ethoprop(hos)       | 0.003/0.01    | ND             | 0.01        | Pass   |
| Etofenprox          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Etoxazole           | 0.003/0.01    | ND             | 0.01        | Pass   |
| Fenhexamid          | 0.007/0.02    | ND             | 0.02        | Pass   |
| Fenoxycarb          | 0.003/0.01    | ND             | 0.01        | Pass   |
| Fenpyroximate       | 0.007/0.02    | ND             | 0.02        | Pass   |

| Analyte                 | LOD/LOQ (ppm) | Findings (ppm) | Limit (ppm) | Status |
|-------------------------|---------------|----------------|-------------|--------|
| Fipronil                | 0.003/0.01    | ND             | 0.01        | Pass   |
| Flonicamid              | 0.003/0.01    | ND             | 0.01        | Pass   |
| Fludioxonil             | 0.003/0.01    | ND             | 0.01        | Pass   |
| Hexythiazox             | 0.003/0.01    | ND             | 0.01        | Pass   |
| Imazalil                | 0.003/0.01    | ND             | 0.01        | Pass   |
| Imidacloprid            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Kresoxim Methyl         | 0.003/0.01    | ND             | 0.01        | Pass   |
| Malathion               | 0.003/0.01    | ND             | 0.01        | Pass   |
| Metalaxyl               | 0.003/0.01    | ND             | 0.01        | Pass   |
| Methiocarb              | 0.003/0.01    | ND             | 0.01        | Pass   |
| Methomyl                | 0.003/0.01    | ND             | 0.01        | Pass   |
| Methyl parathion        | 0.003/0.01    | ND             | 0.01        | Pass   |
| Mevinphos               | 0.007/0.02    | ND             | 0.02        | Pass   |
| Myclobutanil            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Naled                   | 0.003/0.01    | ND             | 0.01        | Pass   |
| Oxamyl                  | 0.003/0.01    | ND             | 0.01        | Pass   |
| Paclobutrazol           | 0.003/0.01    | ND             | 0.01        | Pass   |
| Pentachloronitrobenzene | 0.003/0.01    | ND             | 0.01        | Pass   |
| Permethrins             | 0.015/0.05    | ND             | 0.05        | Pass   |
| Phosmet                 | 0.003/0.01    | ND             | 0.01        | Pass   |
| Piperonyl Butoxide      | 0.003/0.01    | ND             | 0.01        | Pass   |
| Prallethrin             | 0.015/0.05    | ND             | 0.05        | Pass   |
| Propiconazole           | 0.003/0.01    | ND             | 0.01        | Pass   |
| Propoxur                | 0.003/0.01    | ND             | 0.01        | Pass   |
| Pyrethrins              | 0.015/0.05    | ND             | 0.05        | Pass   |
| Pyridaben               | 0.003/0.01    | ND             | 0.01        | Pass   |
| Spinetoram              | 0.003/0.01    | ND             | 0.01        | Pass   |
| Spinosad                | 0.003/0.01    | ND             | 0.01        | Pass   |
| Spiromesifen            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Spirotetramat           | 0.003/0.01    | ND             | 0.01        | Pass   |
| Spiroxamine             | 0.003/0.01    | ND             | 0.01        | Pass   |
| Tebuconazole            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Thiacloprid             | 0.003/0.01    | ND             | 0.01        | Pass   |
| Thiamethoxam            | 0.003/0.01    | ND             | 0.01        | Pass   |
| Trifloxystrobin         | 0.003/0.01    | ND             | 0.01        | Pass   |
| Azadirachtin            | 0.100/0.30    | ND             | 0.3         | Pass   |
| Chlormequat Chloride    | 0.03/0.10     | ND             | 0.1         | Pass   |
| MGK 264                 | 0.03/0.10     | ND             | 0.1         | Pass   |

## Residual Solvent Screen ✓ Pass

08/07/2026

**Method:** MF-CHEM-32

**Measurement of Uncertainty Average:** ±1.43%

| Analyte            | LOD/LOQ (µg/g) | Findings (µg/g) | Limit (µg/g) | Status             |
|--------------------|----------------|-----------------|--------------|--------------------|
| Propane            | 67/200         | ND              | 210          | Pass               |
| (+/-)-2-Butanol    | 13.3/40        | ND              | 5000         | Pass               |
| 1,1-Dichloroethene | 2/4            | ND              | 8            | Pass               |
| 1,2-Dichloroethane | 0.2/0.5        | ND              | 5            | Pass               |
| 1,4-Dioxane        | 13.3/40        | ND              | 30           | Pass               |
| 2-Ethoxyethanol    | 13.3/40        | ND              | 160          | Pass               |
| Acetone            | 67/200         | ND              | 500          | Pass               |
| Acetonitrile       | 67/200         | ND              | 410          | Pass               |
| Benzene            | 0.2/0.5        | ND              | 1            | Pass               |
| Chloroform         | 0.2/0.5        | ND              | 2            | Pass               |
| Cumene             | 13.3/40        | ND              | 70           | Pass               |
| Cyclohexane        | 13.3/40        | ND              | 3880         | Pass               |
| Ethanol            | 67/200         | 704.00          | 5000         | Pass               |
| Ethyl acetate      | 67/200         | ND              | 1000         | Pass               |
| Ethyl ether        | 67/200         | ND              | 5000         | Pass               |
| Ethylene Glycol    | 13.3/40        | ND              | 620          | Pass               |
| Ethylene oxide     | 0.2/0.5        | ND              | 5            | Pass               |
| n-Heptane          | 67/200         | ND              | 500          | Pass               |
| Isopropyl Acetate  | 13.3/40        | ND              | 5000         | Pass               |
| Isopropyl alcohol  | 67/200         | ND              | 500          | Pass               |
| Methanol           | 67/200         | ND              | 500          | Pass               |
| Methylene chloride | 0.2/0.5        | ND              | 600          | Pass               |
| Toluene            | 67/200         | ND              | 53           | Pass               |
| Tetrahydrofuran    | 13.3/40        | ND              | 720          | Pass               |
| Trichloroethene    | 13.3/40        | ND              | 80           | Pass               |
| Isobutane          | 6.7/20         | ND              | -            | See Total Butanes  |
| n-Butane           | 67/200         | ND              | -            | See Total Butanes  |
| Total Butanes      | 6.7/40         | ND              | 500          | Pass               |
| 2,2-Dimethylbutane | 2.7/8          | ND              | -            | See Total Hexanes  |
| 2,3-Dimethylbutane | 2.7/8          | ND              | -            | See Total Hexanes  |
| 2-Methylpentane    | 2.7/8          | ND              | -            | Pass               |
| 3-Methylpentane    | 2.7/8          | ND              | -            | Pass               |
| n-Hexane           | 67/200         | ND              | -            | See Total Hexanes  |
| Total Hexanes      | 2.7/8          | ND              | 18           | Pass               |
| 2 Methylbutane     | 4.4/13.34      | ND              | -            | See Total Pentanes |
| Neopentane         | 4.4/13.34      | ND              | -            | See Total Pentanes |
| n-Pentane          | 67/200         | ND              | -            | See Total Pentanes |
| Total Pentanes     | 4.4/13.34      | ND              | 500          | Pass               |
| Ethylbenzene       | 3.3/10         | ND              | -            | See Total Xylenes  |
| m+p-Xylene         | 6.7/20         | ND              | -            | See Total Xylenes  |
| o-Xylene           | 3.3/10         | ND              | -            | See Total Xylenes  |
| Total Xylenes      | 67/200         | ND              | 217          | Pass               |

## Heavy Metal Screen ✓ Pass

08/07/2026

**Method:** MF-CHEM-16

**Instrument:** Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

**Measurement of Uncertainty Average:** ±4.4%

| Analyte | LOD / LOQ (µg/g) | Findings (µg/g) | Limit | Status |
|---------|------------------|-----------------|-------|--------|
| Arsenic | 0.033/0.101      | ND              | 0.2   | Pass   |
| Cadmium | 0.047/0.141      | ND              | 0.2   | Pass   |
| Mercury | 0.014/0.05       | ND              | 0.1   | Pass   |
| Lead    | 0.107/0.324      | ND              | 0.5   | Pass   |

## Foreign Material ✓ Pass

08/07/2026

**Method:** MF-CHEM-7

| Analyte                        | Findings | Limit    | Status |
|--------------------------------|----------|----------|--------|
| Sand, Soils, Cinders, and Dirt | ND       | 25%      | Pass   |
| Mold                           | ND       | 25%      | Pass   |
| Imbedded Foreign Material      | ND       | 25%      | Pass   |
| Insect Fragment                | ND       | 1 per 3g | Pass   |
| Hair                           | ND       | 1 per 3g | Pass   |
| Mammalian Excreta              | ND       | 1 per 3g | Pass   |

## Mycotoxin Screen ✔ Pass

08/07/2026

**Method:** MF-CHEM-13

**Instrument:** Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

**Measurement of Uncertainty (MU):** ±20.21%

| Analyte          | LOD/LOQ (ppb) | Findings (ppb) | Limit (ppb) | Status |
|------------------|---------------|----------------|-------------|--------|
| Aflatoxin B1     | 2/5           | ND             | 20          | Pass   |
| Aflatoxin B2     | 2/5           | ND             | 20          | Pass   |
| Aflatoxin G1     | 2/5           | ND             | 20          | Pass   |
| Aflatoxin G2     | 2/5           | ND             | 20          | Pass   |
| Total Aflatoxins | 8/20          | ND             | 20          | Pass   |
| Ochratoxin A     | 2/5           | ND             | 20          | Pass   |

**Product Ingredients:** Carbonated water, natural flavor, THC, citric acid.

**F.S. § 581.217 & FDACS Rule § 5K-4.034 Manufacturer Attestation:** Per manufacturer attestation, this batch was processed in a facility holding a valid health or food safety permit and meets all relevant sanitation requirements. Pursuant to Rule § 5K-4.034, the manufacturer maintains these permits and facility inspection records to provide upon request. Verifying this documentation falls outside the scope of the lab's analytical testing.

ND = None Detected  
LOD = Limit of Detection  
LOQ = Limit of Quantitation

Reported by




Vu Lam  
Lab Co Director



Scan to verify