

CDOT Central 70 Project
Air Quality Alert Summary

Monitor Location	Date of Alert	KMP Notes/Corrective Action	Aconex Reference	PM10 Max (µg/m³)*
Quebec	10/1/2018	<p>1. Night shift superintendent Martin Brown responded to the area. He indicated there was no construction activity observed causing this instance. Crews were working near Colorado on barrier.</p> <p>2. At the start of the day shift, Megan Wood, environmental superintendent, responded to the area to identify any concerns that may cause the dust reading. Upon observation, it was noted that the yard had been recently stabilized with asphalt millings, helping to eliminate the amount of exposed haul road surface. A stockpile was present near the recently constructed washout, however the pile was observed to have a "crust" on it, indicating it had been rained on or watered and no signs of wind erosion were observed. The adjacent borrow pit (SE quadrant) was also observed. This area had been cleared, however due to recent moisture and fog/mist in the air, the surface was slightly damp, again with no signs of wind erosion. The only stockpiles observed included asphalt millings and VTC rock.</p> <p>3. KIC consulted with the air quality consultant who indicated that during times of moisture (specifically rains or mist/fog) the water particles in the air can capture particles already present in the atmosphere that may lead to the monitor reading the noted PM10 level.</p> <p>4. Additional actions to be taken by KIC include continuing to place asphalt millings as available on haul routes or staging areas to minimize exposed surfaces. KIC is also investigating alternative stockpile covers (rather than poly) including dirt glue, that can be applied to short term stockpiles.</p>	KIE-EML-000845	292.6
Quebec	10/1/2018	<p>1. The Environmental Manager and environmental field engineer responded to the site when the monitor started trending up. They observed the work areas and the monitor. There were no construction operations occurring near this monitor during this alert period. The EM and engineer did not observe any dust, or any areas that appeared to be creating any air quality issues. It was observed that the surrounding air, in general, was very hazy.</p> <p>2. The environmental superintendent called the air monitoring consultant to verify whether or not the monitor may be failing to operate accordingly. The consultant indicated that he had pulled up CDPHE air monitors for the surrounding areas, including those in Adams County and Denver County (ex. monitor locations included Swansea, National Jewish Health, etc.), and all monitors were observed to have a high trend. Around 10:00 AM, all regional monitors began to rise and were reaching upwards of 100 ug/L at that time and were trending up.</p> <p>KIC believes that this event was regional and was not a result of construction operations. KIC will however continue to monitor this area and communicate the needs for dust control with field crews.</p>	KIE-EML-000848	149.9
46th & Vine and 45th & Josephine	10/29/2018	<p>1. The Environmental Manager contacted the night shift construction manager and superintendent working in these areas. The crews were working on setting barrier and some of the UPRR shoofly construction. The superintendent immediately brought the water truck over to the work areas for additional treatment. This immediately contained further dust and as noted in the graphs, the PM10 levels subsided.</p> <p>2. The EM discussed with the superintendent having the truck stay with the operations specifically rather than visiting other operations when the weather included enough wind to create dust issues from the work area.</p>	KIE-EML-003450	196
Quebec	11/21/2018	<p>This was immediately brought up in the project POD meeting with all superintendents and management. The Civil superintendent immediately contacted the water truck and directed him to the Quebec location to apply water to the area. The water truck arrived here shortly after 1:00 PM and sprayed any exposed dirt surfaces and piles.</p>	KIE-EML-001222	254.4
45th & Josephine	11/27/2018	<p>The site superintendent Don McCloud immediately checked on operations in this area, and did not observe any clear signs of dust. However he did direct the water truck to this location to wet down all work areas.</p> <p>There was a fire at the Denver Scrap Metal and Recycling facility near 48th and Washington, which may have led to this alert.</p>	KIE-EML-001452	158.5
45th & Josephine	12/10/2018	<p>KIC believes this was still part of a regional event. There were no dust generating operations occurring near this area by crews last night.</p>	KIE-EML-001527	315.9
45th & Josephine	12/17/2018	<p>The project team is implementing two corrective actions. The first, which will be implemented today, includes specific sweeping operations near these work areas. The BMP crew will first sweep and shovel to remove any excess dirt, and then the pick up broom will thoroughly sweep behind them.</p> <p>In addition, the team is currently setting up the BMP crew with the means to apply "dirt glue" to small stockpiles around the site to further manage dust control. Currently we are procuring materials, submitting the required material certifications, completing a driver file for a designated person to tow a water buffalo, and developing a work plan on how to manage these piles with "dirt glue". This control will be implemented as soon as these tasks are complete.</p>	KIE-EML-001556	170
Quebec Staging Area	2/6/2019	N/A - weather related	KIE-EML-001849	181
Quebec Staging Area	2/8/2019	N/A - weather related	KIE-EML-001896	135.7
Quebec Staging Area	2/10/2019	N/A - weather related	KIE-EML-001911	205.4
Quebec Staging Area	2/26/19	N/A - weather related	KIE-EML-002050	299.3
Quebec Staging Area	2/27/19	N/A - weather related	KIE-EML-002063	177.1
Quebec Staging Area	3/6/2019	Deployed water truck to spray haul road. Made sure trucks were covering their loads	KIE-EML-002121	135.3
Quebec Staging Area	03/21/2019	Deployed water truck to spray haul road. Made sure trucks were covering their loads	KIE-EML-002164	146
Quebec Staging Area & I-225/I-70	03/25/2019	N/A – weather related (fog)	KIE-EML-002174	153.6
Quebec Staging Area	03/27/2019	N/A – the monitor was being disconnected for replacement during the notification, it was caused by handling the sensor.	KIE-EML-002195	N/A
All	07/04/2019	Verified no work onsite and no dust observed	KIE-EML-002695	382.02
All	07/05/2019	Verified no work onsite and no dust observed	KIE-EML-002695	146.57
46th & Vine	08/20/2019	EM met with all west segment superintendents in the field to review operations and areas. Sprayed haul loads, stockpiles, and staging areas. Also sprayed loads as they were being dumped.	KIE-EML-002916	160.05
Quebec Yard	08/20/2019	Regional event – KMP crews deployed water trucks regardless to work area and staging yard	KIE-EML-002916	415.34
Quebec Yard	9/21/2019	Water truck sprayed haul route and staging yard	KIE-EML-003068	224.79
46th & Vine	9/26/2019	Direct result of monthly calibration, no action needed	KIE-EML-003085	452.12

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46th & Vine	10/4/2019	No work in the area, water truck sprayed staging yard	KIE-EML-003112	236.53
46th & Vine	10/9/2019	Regional wind event with incoming storm, no work (in between shifts)	KIE-EML-003140	135.24
45th & Josephine	10/9/2019	Regional wind event with incoming storm, no work (in between shifts)	KIE-EML-003140	143.11
Quebec Yard	10/9/2019	Regional wind event with incoming storm, no work (in between shifts)	KIE-EML-003140	608.97
Quebec Yard	10/21/2019	High wind gusts, shut down operation, deployed water truck	KIE-EML-003191	159.59
45th & Josephine	10/25/2019	Direct result of monthly calibration, no action needed	KIE-EML-003221	174.44
Quebec Yard	11/19/2019	Moved trucks closer to the mill to ensure material does not blow when loading	KIE-EML-003391	212.58
Quebec	1/6/2020	Street sweeper sent to ramps to clean snow melt debris and sand/salt mixture from the snowstorm	KIE-EML-003562	135.91
46th St. & Vine St	1/12/2020	Wetted down stockpiles with the water truck. Continued to mist the haul roads throughout the day.	KIE-EML-003600	203.09
Quebec	5/7/2020	Stopped hauling, applied water to the area, increased street sweeping	KIE-EML-004326	337.94
Quebec; Vine & 46th	5/19/2020	Event occurred during significant wind gusts up to 46 mph	KIE-EML-004383	216.51
Quebec	5/20/2020	Event occurred during significant wind gusts exceeding 40 mph	KIE-EML-004389	190.54
46th & Vine	6/6/2020	Event occurred during significant wind gusts exceeding 57 mph, no work was occurring	KIE-EML-004434	257.39
Quebec	6/8/2020	Event occurred during significant wind gusts exceeding 52 mph, no work was occurring	KIE-EML-004438	168.6
Quebec	6/24/2020	Wind gusts resulting in a severe storm blew through the area	KIE-EML-004389	161.9
46th & Vine	7/4/2020	Event occurred during firework activities on July 4th	KIE-EML-004576	209.92
45th & Josephine	7/4/2020	Event occurred during firework activities on July 4th	KIE-EML-004576	184.82
Quebec	7/4/2020	Event occurred during firework activities on July 4th	KIE-EML-004576	172.49
Quebec	8/6/2020	Weather related – turned sprinkler on stockpiles, slope was tackified previous week	KIE-EML-004874	138.92
46th & Vine	8/11/2020	Weather related – water trucks deployed to UPRR & York, swept on top of the cover	KIE-EML-004895	184.66
46th & Vine	8/18/2020	Added an additional water truck to the area	KIE-EML-004930	143.86
I-225 & I-70	8/21/2020	Water truck and street sweeper sent to the center median to conduct additional cleaning	KIE-EML-004934	152.83
All	08/21/20 – 08/24/20	Smoke from wildfires	KIE-EML-004942	293.46
46th & Vine I-225 & I-70	09/06/20 – 09/07/20	Smoke from wildfires	KIE-EML-005060	260.84
All	09/16/20 – 09/18/20	Smoke from wildfires	KIE-EML-005132	228.59
46th & Vine I-225 & I-70	09/18/20 – 09/19/20	Smoke from wildfires	KIE-EML-005152	180.22
All	9/26/2020	Smoke from wildfires	KIE-EML-005193	243.43
46th & Vine	10/7/2020	Excavation and loading were occurring immediately adjacent to the monitor. Crews wet the soil being excavated as well as wet it when loading into the trucks.	KIE-EML-005264	212.25
46th & Vine	10/8/2020	Excavation and loading were occurring immediately adjacent to the monitor. Crews wet the soil being excavated as well as wet it when loading into the trucks.	KIE-EML-005280	154.53
All	10/11/2020	Wind weather event	KIE-EML-005302	522
Quebec	11/14/2020	Water trucks continued to run all day and night during work shifts. Seeding is continuing in the Quebec area (among other areas) which will further stabilized disturbed locations and minimize dust potential.	KIE-EML-005519	150
46th & Gaylord	1/13/2021	Water trucks were deployed to continue to wet the area and haul roads. No dirt disturbing activities were ongoing during this time.	KIE-EML-005741	336.18
46th & Gaylord	1/14/2021	Water trucks were deployed to continue to wet the area and haul roads. No dirt disturbing activities were ongoing during this time.	KIE-EML-005741	208.67
I-225 & I-70	2/1/2021	There were no construction activities and no operations and maintenance activities or significant sources of dust (stockpiles, large disturbed areas, etc.) located near this monitor. The nearest work area was seeded and mulched last fall. The air monitoring consultant suggested it could be from passing traffic or other local activities as the monitor sits right on the active on-ramp.	KIE-EML-005815	133.81
Quebec	2/4/2021	Normal hauling/crushing activities, with wind gusts above 30 mph that contributed to the alert. Water trucks were deployed to wet the haul roads and to spray down the materials being hauled out.	KIE-EML-005832	173.62
Quebec	2/9/2021	At this time there was no work in the area (in between day and night shifts) and there were only mild winds. When the first construction manager arrived at 5:00 AM, he inspected the area but did not see any signs of what may be contributing to the alerts. The alert was cleared in the hour.	KIE-EML-005843	144.56
I-225 & I-70	2/17/2021	There were no construction or operations and maintenance activities in the area. The monitors have been known to register alerts when there is fog or mist present (which were the conditions at the time of the alert).	KIE-EML-005896	139.42
46th & Gaylord	3/8/2021	An alert occurred at 46th & Gaylord (formerly 46th & Vine). This was a direct result of the air consultant replacing the spare monitor that had been in place at this location with the normal monitor that was recently returned from factory calibration. No action was taken, and upon completion of reinstallation the monitor is functioning normally.	KIE-EML-005962	455.58
I-225 & I-70	3/19/2021	An alert occurred at 225/I-70 on Friday (3/19). Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere.	KIE-EML-006012	241.63
46th & Gaylord	3/19/2021	An alert occurred at 46th & Gaylord on Friday 3/19/2021, into Saturday 3/20/2021. Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere.	KIE-EML-006012	228.62
Quebec	3/19/2021	An alert occurred at Quebec on Friday (3/19). Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere.	KIE-EML-006012	230.35

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I-225 & I-70	3/20/2021	An alert occurred at 225/I-70 on Friday 3/19/2021, into Saturday 3/20/2021. Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere. Alerts also occurred in the afternoon of 3/20/2021, due to high winds (25-35 MPH).	KIE-EML-006012	212.1
46th & Gaylord	3/20/2021	An alert occurred at 46th & Gaylord on Friday 3/19/2021, into Saturday 3/20/2021. Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere. Alerts also occurred in the afternoon of 3/20/2021, due to high winds (25-35 MPH).	KIE-EML-006012	248.79
Quebec	3/20/2021	An alert occurred at Quebec on Friday 3/19/2021, into Saturday 3/20/2021. Air quality readings across Denver peaked due to an inversion; commonplace in winter months. A layer of cool air is restricted by a layer of warm air above the surface, preventing the cool air and its pollutants from rising in the atmosphere. Alerts also occurred in the afternoon of 3/20/2021, due to high winds (25-35 MPH).	KIE-EML-006012	243.44
46th & Gaylord	3/29/2021	An alert occurred at 46th & Gaylord on 3/29/2021 due to high winds.	KIE-EML-006123	147.25
Quebec	3/29/2021	An alert occurred at Quebec on 3/29/2021 due to high winds. No hauling operations were underway at the time.	KIE-EML-006123	228.45
45th & Josephine	4/8/2021	An alert occurred on 4/8/2021 during a shift change. There were no hauling operations or sweepers were active during this time. The alert was likely due to the re-installation of the reconditioned PM10 sensor that was sent back from the factory and installed less than 24 hours prior to the alert.	KIE-EML-006116	143.06
46th and Gaylord	5/2/2021	This alert was directly correlated to strong wind gusts during a rainstorm reaching between 25 and 38 mph at the time of the alert. No grading activity was occurring.	KIE-EML-006160	175.58
Quebec	5/2/2021	This alert was directly correlated to strong wind gusts during a rainstorm reaching between 25 and 38 mph at the time of the alert. No grading activity was occurring; the only operations taking place at the time of the alert included paving at Quebec where crews observed strong winds around 11:15AM.	KIE-EML-006160	137.15
46th and Gaylord	5/8/2021	No earth-disturbing operations were occurring at UPRR during this time, only stripping concrete forms. Crews did however observe strong winds during a rain event that afternoon, supporting that this alert is correlated to the 29mph winds registered at the hour of the alert.	KIE-EML-006193	251.58
Quebec	5/20/2021	The crusher yard at SE Quebec had minimal operations during the time of the alert. Strong winds, however, were recorded with gusts reaching a peak of 28mph during the time of the alert. Water trucks were sent to the area to mitigate dust from the wind. To further stabilize disturbed locations and minimize dust potential, slopes in the Quebec area were treated with hydromulch as temporary stabilization on 5/19 with seeding to continue in the following weeks.	KIE-EML-006249	155.96
46th and Gaylord	5/23/2021	In addition to demolition activities, extreme winds with gusts reaching 41-46 mph during the time of the alert. Operations were halted and water trucks were sent to the demolition location allowing PM10 to return to normal levels within the hour. PM10 readings for the viaduct demolition weekend remained below alert levels, meeting EPA's "good/moderate" PM10 standards, until the significant winds on 5/23 triggered the alert. KMP will continue to manage dust and air quality through the viaduct demolition with water application continuing through all demo activities.	KIE-EML-006251	204.86
46th and Gaylord	6/8/2021	The closest dust-producing operation located near the Gaylord monitor was the loading of concrete at Brighton to the west side of the demolition, however crews did report high winds. Upon reviewing the attached weather data, this exceedance hour is shown to correlate with high winds at this time reaching between 23-27 MPH between 4:00-5:00 PM contributing to the exceedance reported. Dust suppression controls including water trucks and sprayers will continue to be in operation during all demo activities.	KIE-EML-006333	181.47
Quebec	6/17/2021	Grading operations were occurring at this time with hauls running from SW Quebec. Grading crews were notified and hauls were halted until a water truck returned to spray the dirt haul road. Airlawn Road and Frontage Road were swept to remove any sediment on the paved surface with routine sweeps continuing throughout the day.	KIE-EML-006375	134.08
46th & Gaylord	7/4/2021	There were no construction activities in the area. The alerts were due to the 4th of July activities including smoke/particulates from fireworks. This has occurred in previous years and can also be seen regionally on the surrounding monitors. No action was taken with regards to construction operations.	KIE-EML-006433	157.13
45th & Josephine	7/4/2021	There were no construction activities in the area. The alerts were due to the 4th of July activities including smoke/particulates from fireworks. This has occurred in previous years and can also be seen regionally on the surrounding monitors. No action was taken with regards to construction operations.	KIE-EML-006433	343.82

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45th & Josephine	7/5/2021	There were no construction activities in the area. The alerts were due to the 4th of July activities including smoke/particulates from fireworks. This has occurred in previous years and can also be seen regionally on the surrounding monitors. No action was taken with regards to construction operations.	KIE-EML-006433	656.33
45th & Josephine	7/6/2021	There were no construction activities in the area. The alerts were due to the 4th of July activities including smoke/particulates from fireworks. This has occurred in previous years and can also be seen regionally on the surrounding monitors. No action was taken with regards to construction operations.	KIE-EML-006433	197.81
45th & Josephine	7/13/2021	There were no operations in the area during this night shift as we had previously conducted night demolition over the weekend and cannot work at night in these areas until Friday (7/16). Demo operations continued on 7/13, but visual inspections were conducted, and water controls were in place. Two water trucks with direct hoses and two misters were being used on the bridge demo over Josephine. The 46th & Gaylord monitor also had higher readings for PM10 during this period, as well as the SAMS monitor. It appears this is a global event caused by smoke.	KIE-EML-006457	190.69
45th & Josephine	7/14/2021	There were no operations in the area during this night shift as we had previously conducted night demolition over the weekend and cannot work at night in these areas until Friday (7/16). Demo operations continued on 7/13, but visual inspections were conducted, and water controls were in place. Two water trucks with direct hoses and two misters were being used on the bridge demo over Josephine. The 46th & Gaylord monitor also had higher readings for PM10 during this period, as well as the SAMS monitor. It appears this is a global event caused by smoke.	KIE-EML-006457	188.18
45th & Josephine	7/15/2021	There were no operations in the area during this night shift as we had previously conducted night demolition over the weekend and cannot work at night in these areas until Friday (7/16). Demo operations continued on 7/13, but visual inspections were conducted, and water controls were in place. Two water trucks with direct hoses and two misters were being used on the bridge demo over Josephine. The 46th & Gaylord monitor also had higher readings for PM10 during this period, as well as the SAMS monitor. It appears this is a global event caused by smoke.	KIE-EML-006457	392.77
I-225 & I-70	7/24/2021	On Saturday, July 24th, both the I-225 & I-70 monitor triggered an alert. There were no operations occurring out east near the I-225 & I-70 monitor. Due to equipment failures on Friday, there were no other demolition activities occurring. There were slight wind gusts during the time of the alerts that may have contributed to the alert.	KIE-EML-006510	166.84
46th & Gaylord	7/24/2021	On Saturday, July 24th, both the 46th & Gaylord monitor triggered an alert. Work near the 46th & Gaylord monitor included some saw cutting and removals at the UPRR bridge. Due to equipment failures on Friday, there were no other demolition activities occurring. There were slight wind gusts during the time of the alerts that may have contributed to the alert.	KIE-EML-006510	138.75
I-225 & I-70	7/31/2021	On Saturday July 31st, the I-225 monitor triggered an alert at 10:00PM clearing at 10:00AM on Sunday August 1st, and again on Sunday August 1st, at 12:00PM clearing on Monday August 2nd at 9:00AM. No operations were occurring at 225 during this time; the original alert was likely triggered by air quality issues spreading across the state from wildfire smoke (see attached for CDPHE air quality alert from Saturday into Sunday). The I-225 monitor showed a trend moving upwards throughout the day on Sunday, which typically indicates a calibration issue. A manual zero calibration was conducted on Monday morning clearing the monitor and returning to normal levels by the afternoon.	KIE-EML-006535	156.4
I-225 & I-70	8/1/2021	On Sunday 8/1/21, the I-225 monitor triggered an alert. No operations were occurring at I-225 during this time; the original alert was likely triggered by air quality issues spreading across the state from wildfire smoke. The I-225 monitor showed a trend moving upwards throughout the day on Sunday, which typically indicates a calibration issue. A manual zero calibration was conducted on Monday morning clearing the monitor and returning to normal levels by the afternoon.	KIE-EML-006535	201.82
Quebec	8/1/2021	On Sunday, 08/1/21 the Quebec monitor triggered an air alert at 8:00AM clearing at 9:00AM. Operations were evaluated, with no work occurring that would have triggered an alert at this time. The alert was likely caused by wildfire smoke that settled over the Front Range throughout the weekend. This poor air quality prompted CDPHE to release an air quality alert on Sunday for the Denver region due to high concentrations of ozone and particulate matter.	KIE-EML-006533	134.99
I-225 & I-70	8/2/2021	On Saturday July 31st, the I-225 monitor triggered an alert at 10:00PM clearing at 10:00AM on Sunday August 1st, and again on Sunday August 1st, at 12:00PM clearing on Monday August 2nd at 9:00AM. No operations were occurring at 225 during this time; the original alert was likely triggered by air quality issues spreading across the state from wildfire smoke. The I-225 monitor showed a trend moving upwards throughout the day on Sunday, which typically indicates a calibration issue. A manual zero calibration was conducted on Monday August 2nd clearing the monitor and returning to normal levels by the afternoon.	KIE-EML-006535	155.57

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45th & Josephine	8/7/2021	All air monitors onsite triggered alerts this weekend beginning on Saturday 8/7/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	239.65
46th & Gaylord	8/7/2021	All air monitors onsite triggered alerts this weekend beginning on Saturday 8/7/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	428.84
Quebec	8/7/2021	All air monitors onsite triggered alerts this weekend beginning on Saturday 8/7/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	350.52
I-225 & I-70	8/8/2021	All air monitors onsite triggered alerts on 8/8/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	320.77
45th & Josephine	8/8/2021	All air monitors onsite triggered alerts on 8/8/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	151.87
46th & Gaylord	8/8/2021	All air monitors onsite triggered alerts on 8/8/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	311.84
Quebec	8/8/2021	All air monitors onsite triggered alerts on 8/8/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	282.58
I-225 & I-70	8/9/2021	The I-225 & I-70 air monitor triggered an alert on 8/9/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	183.67

CDOT Central 70 Project
Air Quality Alert Summary

Monitor Location	Date of Alert	KMP Notes/Corrective Action	Aconex Reference	PM10 Max (µg/m³)*
Quebec	8/9/2021	The Quebec air monitor triggered an alert on 8/9/21. There were no demolition activities. Construction consisted of the highway closure to pave the westbound lanes with final lift through the center segment. There were no observed dust causing activities observed around the monitors at the time of the initial alerts. Denver is currently experiencing regional air quality issues. Please see attached the air data from two other Denver monitors (Globeville and SAMS) as well as a news article regarding Denver air quality this weekend, and the CDPHE issues air quality alerts.	KIE-EML-006559	150.02
46th & Gaylord	8/10/2021	An air monitor alert was sent by the 46th & Gaylord monitor on 8/10/21. There were no demolition activities taking place in this area. We are in the process of moving our crane in order to complete additional picks of the steel girders that are over the UPRR railroad. We believe the alert was a result of smoke and air quality in the area.	KIE-EML-006566	156.23
Quebec	8/10/2021	There was a project air monitor alert sent by the monitor located at Quebec on 8/10/21. This alert occurred between shifts when no construction operations were taking place. In the area the only disturbance consists of the water quality pond that is currently being graded. While final grading is still in progress, temporary stabilization including equipment tracking of slopes, is implemented at the end of shift. We believe the alert was a result of smoke and air quality in the area.	KIE-EML-006569	175.7
46th & Gaylord	8/17/2021	On 8/17/21, there was an air monitor alert triggered at 46th & Gaylord. This alert occurred between our shifts when no construction operations were occurring. High winds occurred at the time of this alert, and it appears it may have been a regional event. I have included our monitor graphs as well as a couple of reference sites. All show a significant sudden jump in PM10 levels at this time. I am also including a photo of the "dust/cloud" moving in that we captured from on top of the viaduct shortly before the alerts. Also for reference is a copy of yesterday's weather data showing the wind gusts and a copy of the ozone alert for Denver.	KIE-EML-006592	255.03
Quebec	8/17/2021	On 8/17/21, there was an air monitor alert triggered at Quebec. This alert occurred between our shifts when no construction operations were occurring. High winds occurred at the time of this alert, and it appears it may have been a regional event. I have included our monitor graphs as well as a couple of reference sites. All show a significant sudden jump in PM10 levels at this time. I am also including a photo of the "dust/cloud" moving in that we captured from on top of the viaduct shortly before the alerts. Also for reference is a copy of yesterday's weather data showing the wind gusts and a copy of the ozone alert for Denver.	KIE-EML-006592	179.72
46th & Gaylord	9/8/2021	On 9/8/2021, there was an air monitor alert triggered at 46th & Gaylord. CDPHE issued an Action Day for multiple pollutants for the Denver area. Poor air quality in the general area is believed to have triggered the alert.	KIE-EML-006677	155.48
Quebec	9/16/2021	On 9/16/2021, there was an air monitor alert triggered at Quebec. This was at the same time that high wind gusts were blowing a cold front into the region. There was no nightshift work at this location. The night shift construction manager did deploy the water truck to address any stockpiles in the area.	KIE-EML-006703	167.83
46th & Gaylord	10/9/2021	On 10/9/2021, an air monitor alert was triggered at 46th & Gaylord. There were no construction operations in this area over the weekend (highway closure in the east segment and all our resources were concentrated there). There were high winds around this time (35 mph).	KIE-EML-006745	187.37
I-225 & I-70	10/17/2021	On 10/17/2021, an air alert was triggered at I-225 & I-70. This monitor represents the east segment of work (Quebec St. to Airport Rd.). There were no construction operations in this area. It is unknown what may have caused the alert. There were no alerts or high readings from any other project monitors	KIE-EML-006776	180.21

CDOT Central 70 Project
Air Quality Alert Summary

Monitor Location	Date of Alert	KMP Notes/Corrective Action	Aconex Reference	PM10 Max ($\mu\text{g}/\text{m}^3$)*
46th & Gaylord	11/10/2021	On 11/10/2021, an air alert was triggered at 46th & Gaylord. High winds reaching gusts of 34 MPH were recorded at this time across the project. Water trucks were deployed to the area to mitigate dust from the wind and address any stockpiles and disturbed surfaces in the area	KIE-EML-006832	210.76
46th & Gaylord	12/5/2021	On 12/5/2021, an air alert was triggered at 46th & Gaylord. No operations were occurring at this location during the time of the alert. The alert is directly correlated with high wind speeds, with gusts reaching 37 MPH at the time of the alert.	KIE-EML-006886	188.19
Quebec	12/5/2021	On 12/5/2021, an air alert was triggered at Quebec. No operations were occurring at this location during the time of the alert. The alert is directly correlated with high wind speeds, with gusts reaching 37 MPH at the time of the alert.	KIE-EML-006886	153.23
46th & Gaylord	1/21/2022	On 1/21/2022, an air alert was triggered at the 46th & Gaylord monitor location. The monitor showed a trend moving upwards throughout the morning, clearing and alerting several times; usually associated with a calibration issue. A manual zero calibration returned the monitor back to normal levels at 11:00AM on 1/21/22. Per noise ordinance requirements, there are no nightshift operations permitted in the work area adjacent to the Gaylord & N 46th air monitor location. This indicated that the alert at 1:00AM did not result from construction activities. The alert could have also been triggered by a weather inversion layer. Cold temperatures and calm winds trap pollutants near the surface until a storm system or weather front breaks up the inversion and allows the accumulated pollutants to disperse.	KIE-EML-006973	160.91
46th & Gaylord	3/26/2022	On Saturday 3/26/2022 the air monitor at 46th & Gaylord St registered an alert at 9:00am. At the time of the 9:00am exceedance the closest grading operations to the Gaylord monitor were at Swansea Elementary School Parking lot, over 0.25 miles east of the Gaylord air monitor. Other grading operations occurring at time were located at S 46th & Cook St, 0.70 miles east of the Gaylord monitor, and at mainline under Colorado Blvd, 1.06 miles east of the Gaylord monitor. Please note the air monitor located at N 46th & Milwaukee, located only 0.17miles east of the hauls at Swansea remained at normal levels during the time of the Gaylord air alert (see PM10 data attached). Additionally, soils at the Swansea Elementary School were saturated as evidenced by the photograph attached, taken at 0913 on 3/26/2022.	KIE-EML-007151	140.32
46th & Gaylord	3/26/2022	On Saturday 3/26/2022 the air monitor at 46th & Gaylord St registered an alert at 1:00pm. At the time of the 1:00pm exceedance the closest grading operations to the Gaylord monitor were at Swansea Elementary School Parking lot, over 0.25 miles east of the Gaylord air monitor. Other grading operations occurring at time were located at S 46th & Cook St, 0.70 miles east of the Gaylord monitor, and at mainline under Colorado Blvd, 1.06 miles east of the Gaylord monitor. Please note the air monitor located at N 46th & Milwaukee, located only 0.17miles east of the hauls at Swansea remained at normal levels during the time of the Gaylord air alert. High wind gusts of 28 MPH to 31 MPH were recorded from 11:00AM to 4:00PM on Saturday, reaching 31MPH at the time of the alert, correlating with the time of the air alert at Gaylord St.	KIE-EML-007151	174.8
45th & Josephine	3/29/2022	On Tuesday 3/29/2022, the Josephine monitor registered an air alert at 1:00PM. Upon investigation it was discovered that a third party construction company was doing asphalt work within 10ft of the monitor. South 46th has been paved from Josephine to Clayton and no Kiewit grading operations were occurring on York St at this time. The close proximity of the third party work and an increase in wind speed from an incoming rain event is likely was triggered the air alert.	KIE-EML-007158	155.51
45th & Josephine	4/5/2022	On 4/5/2022, the air monitor at Josephine St registered an air alert. This alert occurred during a high wind event across the Denver region by the National Weather Service.	KIE-EML-007169	257.6
46th & Gaylord	4/22/2022	On 4/22/2022 at 3:00 PM, the monitor at Gaylord registered an air alert. The air alert graph shows a spike at 135.21. This alert occurred during a gust of wind in the area registered at 52 MPH, see the National Weather Service graph provided in notification correspondence.	KIE-EML-007222	135.21

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Monitor Location	Date of Alert	KMP Notes/Corrective Action	Aconex Reference	PM10 Max (µg/m³)*
46th & Gaylord	4/23/2022	On 4/23/2022, the Gaylord air monitor registered multiple air alerts, between 8:00-10:00 AM, indicated in this row and another in the afternoon indicated below. It is unknown what caused the air alert as there were no high winds registered in the area and no project related earth disturbing activities occurring in the area of the monitor.	KIE-EML-007223	332.57
46th & Gaylord	4/23/2022	On 4/23/2022, the Gaylord air monitor registered multiple air alerts, two in the morning indicated above, and one in the afternoon included in this row. It is unknown what caused the air alert as there were no high winds registered in the area and no project related earth disturbing activities occurring in the area of the monitor.	KIE-EML-007223	165.15
46th & Gaylord	4/29/2022	On 4/29/2022, the Gaylord air monitor registered four consecutive hourly air alerts from 10:00 AM to 1:00 PM, contributing to one overall event or spike. Following the initial notification, KIC investigated the area observing crews placing road base (a mixture of crushed aggregate, not a dust-producing material) for a haul road. There were, however, high winds observed at the Gaylord location. A water truck was deployed to spray the area and a sweeper truck was sent to remove any potential sediment on the pavement. Additionally, high wind gusts recorded during the time of the event reached speeds of 36 MPH and a critical fire weather warning was sent through the Denver region citing strong winds and low humidity contributing to an increased risk of fire danger	KIE-EML-007234	165.01
46th & Colorado	6/6/2022	This is not a formal air quality exceedance. From 6/1/22 to 6/6/22 this monitor was not operational, and on 6/6/22 the missing part arrived and the monitor was repaired. On 6/6/22 an alert was received between noon and 2:00 pm during monitor start up. During monitor start up it takes a few hours to normalize. By the third hour after start up the monitor was correctly recording data. The Clarity Replacement Monitor was in this location between these dates.	N/A	640.07
46th & Gaylord	6/13/2022	On 6/13/2022 the Gaylord air monitor registered three consecutive hourly air alerts at 10:00AM, 11:00AM, and 12:00PM, contributing to one overall event or spike with a fourth air alert at 11:00PM. This is attributed to poor air quality due to wildfire smoke and wind from the Pipeline Fire in Arizona resulting in CDPHE releasing an Ozone Action Day alert in effect from 6/13/22 to 6/14/22. In addition to the smoke, high wind gusts of up to 39MPH were recorded at 11:00PM contributing to the fourth air alert.	KIE-EML-007236	144.67
46th & Gaylord	6/28/2022	On 6/28/2022 the Gaylord air monitor registered an hourly air alert at 6:00 AM, clearing by 7:00 AM. The crews in the area were notified and a water truck was deployed to mitigate any potential dust. There were no ground-disturbing operations in the area at this time, UPRR crews that primarily work nearby the Gaylord monitor were de-mobilizing a yard 2 miles away and there were no operations in the Gaylord & N 46th area or in the adjacent York Pond. Please note, the lowered section of the project below the monitor is almost entirely paved for the future EB I-70 lanes with only a section of S 46th between York and UPRR remaining. The Denver region is currently experiencing poor air quality resulting in CDPHE releasing an Ozone Action Day alert in effect from 6/27/22 to 6/28/22.	KIE-EML-007237	144.12
46th & Gaylord	7/4/2022	On 7/4/2022 the Gaylord and 46th air monitor registered on hourly air alert. No construction activities occurred on the project site. Wind speeds in the area of the monitor during the time of the alert were recorded at 21 MPH from the Southeast. It is believed that the alert may have been triggered by firework activity in the Denver-metro area.	KIE-EML-007335	148.91
46th & Milwaukee	7/4/2022	On 7/4/2022 the Milwaukee and 46th air monitor registered on hourly air alert. No construction activities occurred on the project site. Wind speeds in the area of the monitor during the time of the alert were recorded at 12 MPH. It is believed that the alert may have been triggered by firework activity in the Denver-metro area.	KIE-EML-007336	137.19
Note: 46th and Vine Monitor moved to 46th and Gaylord and DS-867 air monitor originally located at Quebec was relocated to Colorado & N 46th Ave on 4/21/2022.				
Note: The 46th and Colorado air monitor was repaired. It takes a few hours during monitor start up for the monitor to normalize. The air alert on 6/6/22 was issued prior to the monitor normalizing.				
*Alerts are based on 1-hour average readings for each individual monitor.				