



MEMORANDUM

Date: June 15, 2012

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator 

Re: **Comparative Analysis of the Costs and Benefits between the Proposed Rosemont Copper Mine and other New Companies and Company Expansions in Pima County**

As a community we want high paying jobs. Not only do high paying jobs benefit those employees that hold the jobs, but they benefit the community as a whole. Those employees spend at least a portion of their paychecks locally, supporting even more jobs, and they pay taxes to local governments that then provide services and facilities to the local community. These are the types of economic benefits commonly cited and quantified in economic impact studies produced for companies or economic development organizations.

But not all high paying jobs are created equal. Some result in significant adverse impacts to the community, which may diminish or outweigh the benefits they provide. For example, Augusta Resources, the parent company proposing the Rosemont Copper Mine in the Santa Rita mountains south of Tucson, has been very vocal about its intent to provide an average of about 400 jobs annually at an average salary of about \$59,000 (\$70,800 when benefits are included). At face value, that sounds fantastic. These jobs are important and \$59,000 is much higher than our community's average salaries. But locating a new huge industrial facility in a national forest that contributes greatly to our water supply, scenic beauty, wildlife, air quality, historic and cultural identity, recreation, and tourism and astronomy industries, does not come without significant costs. Augusta Resources has largely ignored these costs. And for most of these costs, Augusta Resources is unwilling to mitigate their impact. These are the types of costs commonly missing from economic impact studies. The Tucson Regional Economic Opportunities (TREO) June 2011 economic impact study for the proposed Rosemont Copper Mine states at the beginning of page 1, "The potential impacts of the mine on the value of public lands, the tourism industry, air and water quality, wildlife habitat, astronomical observation conditions and recreational and cultural resources are not addressed in this analysis."

We want high paying jobs, but we do have choices regarding whether we support or incentivize certain businesses over others. It is not just a choice of supporting one industry over another. Location can be critical in assessing costs and benefits. For example, the expansion of the existing mines west of Green Valley or the reopening of an underground mine north of Mt. Lemmon, would create substantially less adverse impacts

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than that of a large new mine in a previously undisturbed area of National Forest in the rural Santa Rita Mountains.

I asked staff to develop a comparative analysis of the costs and benefits between the proposed Rosemont Copper Mine and other new companies or company expansions in Pima County. The attached memorandum presents the results of this analysis.

The companies selected included companies with announcements dating back to 2010, that would provide greater than 100 new jobs, paying a wage comparable or greater than the stated average wage at the proposed Rosemont Copper Mine. During 2010 and 2011, at least 14 other companies announced the creation of over 2,000 new jobs in the Tucson region. However these new jobs didn't meet the criteria used in the analysis because either the average salaries were too low, the numbers of jobs per company were too low, or in one case the jobs were associated with a one-time construction project.

Below are three tables from the memorandum that compare the economic benefits of the new employment opportunities to the costs or adverse impacts.

Table 1
General Economic Benefits

<u>Company</u>	<u># New Direct Jobs</u>	<u># New Indirect & Induced Jobs</u>	<u>Average Salary & Benefits of New Jobs</u>	<u>Total New Jobs Capital Investment</u>	<u>Total New Jobs Economic Benefit in Pima Co. per year (direct, indirect & induced output)</u>
Rosemont Copper/Augusta Resources	350-480	900-1,600	\$70,800	\$897,171,772	\$392,400,000
Ventana Medical Systems/Roche	500	1,263	\$71,500	\$184,000,000	\$223,326,356
Oracle Ridge Mining LLC	240	636	\$78,000	\$100,000,000	\$201,731,693
Sargent Controls	169	420	\$86,366	\$15,000,000	\$87,654,253
DMAFB Drone Squadron	280	461	\$83,814	unknown	\$56,349,815
Bombardier Aerospace	120	254	\$60,796	Using existing space	\$46,008,633
APAC	160	267	\$44,597	Using existing space	\$23,924,091

Table 2
Costs or Adverse Impacts to Land, Cultural and Recreation Resources

<u>Company</u>	<u>Total Acres of New Land Disturbance</u>	<u>Adverse Impacts to Conservation Lands System (acres)</u>	<u>Adverse Impacts to Threatened or Endangered Species</u>	<u>Adverse Impacts to Cultural Resources (# of sites)</u>	<u>Area No Longer Available for Recreation (acres)</u>	<u>Use of Public Land without Compensation</u>
Rosemont Copper/Augusta Resources	4,288	4,288	Yes	96	6,844	Yes
Ventana Medical Systems/Roche	24	24	No	1	0	No
Oracle Ridge Mining LLC	77	77	Potential	5	< 1	No
Sargent Controls	0	0	No	0	0	No
DMAFB Drone Squadron	0	0	No	0	0	N/A
Bombardier Aerospace	0	0	No	0	0	No
APAC	0	0	No	0	0	No

Table 3
Costs or Adverse Impacts to Water, Air, Transportation and Dark Skies

<u>Company</u>	<u>Adverse Impacts to Ground Water Supplies</u>	<u>Adverse Impacts to Air Quality</u>	<u>Adverse Transportation Impacts</u>	<u>Adverse Impacts to Dark Skies</u>
Rosemont Copper/Augusta Resources	High	Yes	High	High
Ventana Medical Systems/Roche	Low	No	Medium	Low
Oracle Ridge Mining, LLC	Medium	No	Low	Low
Sargent Controls	Low	No	Medium	Low
DMAFB Drone Squadron	Low	No	Low	Low
Bombardier Aerospace	Low	No	Low	Low
APAC	Low	No	Low-Medium	Low

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In short, this clearly shows the significant community and environmental costs associated with the Rosemont Copper Mine proposal when compared to other proposals that would also produce a significant number of jobs and economic benefits for our community. If we as a community are going to incentivize or provide support for job creation, it is undoubtedly in our best interests to consider, as well as balance the costs or adverse impacts against the benefits. Everyone does this. Families do it when making decisions on resource allocations. Individuals also do this when making resource allocation decisions. Using only one side of the equation – benefits without considering the costs is flawed and outdated logic. We can and should think better.

The final table below shows that there are companies expanding in Tucson that can create a significant number of new jobs, while causing a fraction of Rosemont’s negative impacts to the community and the environment. Considering only the benefits of a new or expanded employment opportunity without also considering the costs or adverse impacts creates a lopsided view of the proposal. A balanced view of both gives the public the best information upon which to form an informed opinion about the issue.

Table 4
Benefits & Costs Compared to Rosemont

<u>Company</u>	<u>Direct Jobs</u>	<u>Direct Jobs as a % of Rosemont’s</u>	<u>Acres of Conservation Lands System Impacted</u>	<u>Acres of Conservation Land System Impacted as a % of Rosemont’s</u>
Rosemont Copper	350-480	100%	3,648	100%
Ventana Medical Systems	500	104%	24	.01%
Oracle Ridge Mining, LLC	240	50%	77	.02%

Attached is the full staff report that I requested regarding this comparative analysis.

CHH/dr

Attachment



MEMORANDUM

Date: June 14, 2012

To: C.H. Huckelberry
County Administrator

From: Nicole Fyffe, 
Executive Assistant to the
County Administrator

Diana Durazo, 
Special Staff Assistant to the
County Administrator

Re: **Comparative Analysis of the Costs and Benefits between the Proposed Rosemont Copper Mine and other New Companies and Company Expansions in Pima County**

Background

In response to your request, we have completed a comparative analysis of the economic benefits and costs associated with the proposed Rosemont Copper Mine and other new or expanded companies that have recently been announced for the Tucson region. As you will see, the analysis was limited to new or expanded companies that would result in at least 100 new direct jobs with salaries comparable or higher than what Rosemont is proposing. We understood that your request was based on what you view as an apparent lack of consideration of the costs or adverse impacts associated with the proposed Rosemont Copper Mine when compared to the economic benefits that are frequently publicized.

Selection of Comparable New or Expanding Companies

We reviewed announcements of new companies and workforce expansions in the Tucson metropolitan area that were provided by Tucson Regional Economic Opportunities (TREO) and Pima County's Workforce Preparation, Training and Economic Development Department. We also found a couple of others announced in the Arizona Daily Star. We selected companies with announcements dating back to 2010, that would provide greater than 100 new jobs, paying a wage comparable or greater than the stated average wage at the proposed Rosemont Copper Mine. The results are shown in Table 1 and compared to the proposed Rosemont Copper Mine, which submitted an initial mine plan of operations to the US Forest Service in 2006. Note that Oracle Ridge Mining, LLC is a new company that is proposing to re-open an existing copper mine.

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Table 1
Overview of Selected Companies

<u>Company</u>	<u>Expansion or New</u>	<u>Date of Announcement</u>	<u>Industry Type</u>	<u># New Direct Jobs</u>	<u>Average Salary & Benefits of New Jobs</u>
Rosemont Copper/Augusta Resources	New	2006	Mining	350-480	\$70,800
Ventana Medical Systems/Roche	Expansion	2010	Bioscience	500	\$71,500
Oracle Ridge Mining, LLC	New/Re-opening	2010	Mining	240	\$78,000
Sargent Controls	Expansion	2010	Aerospace	169	\$86,366
DMAFB Drone Squadron	Expansion	2011	Military	280	\$83,814
Bombardier Aerospace	Expansion	2011	Aerospace	120	\$60,796
APAC	Expansion	2011	Pharmaceutical	160	\$44,597

A map showing the locations of the new or expanded facilities associated with these companies is included as Attachment 1. Attachment 2 includes articles and announcements about these companies and their new or expanded facility plans. It should be noted that the drone squadron project has not yet been awarded to Davis Monthan Air Force Base (DMAFB), but they are one of three finalists.

During 2010 and 2011, at least 14 other companies announced the creation of over 2,000 new jobs in the Tucson region. However, these jobs didn't meet the criteria used in this analysis. Either the average salaries were too low, the numbers of jobs per company were too low, or in one case the jobs were associated with a one-time construction project.

The sources of data included in Table 1 and other tables included elsewhere in this memorandum, are provided in Attachment 3. Attachment 3 also defines the column headers and how the information was derived. We tried to include data that was already available when possible. For example, some of the basic data like number of direct jobs and the capital investment associated with these new jobs was provided by TREO or found in press releases or news articles. However, with the exception of Rosemont Copper and Ventana Medical Systems, the total number of direct, indirect and induced jobs had to be calculated, as did the total economic benefit associated with those new direct, indirect and induced jobs. Craig Horn, with our Finance Department, is experienced in running and interpreting economic impact models and calculated these figures by running a model called IMPLAN. The full results of the IMPLAN analysis are included in Attachment 4. For the average salaries of Sargent Controls, DMAFB drone squadron project, APAC and Bombardier Aerospace, Mr. Horn chose what he determined to be the most appropriate IMPLAN model sector salary. In the case of some companies, it is likely that they are involved in more than one IMPLAN model sector. For those companies, either the best suited sector was selected or an average

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salary for the sectors was calculated. In reviewing the IMPLAN analysis results in Attachment 4, one can see how much the sector salaries vary for those companies involved in more than one sector. Note that where data was available from other sources, those sources were used and cited as opposed to the IMPLAN data.

Economic Benefits

We developed a list of indicators to compare the economic benefits of these new or expanded businesses. The indicators selected are some of the typical economic benefits cited in the economic impact studies:

- Number of direct new jobs
- Number of indirect and induced jobs that would be created by the new direct jobs
- Average salary and benefits of the new direct jobs
- Capital investment, if any, associated with these new jobs
- Total annual economic benefit to the community as a result of these new jobs

Table 2
Economic Benefits

<u>Company</u>	<u># New Direct Jobs</u>	<u># New Indirect & Induced Jobs</u>	<u>Average salary & benefits of new jobs</u>	<u>Total New Jobs Capital Investment</u>	<u>Total New Jobs Economic Benefit in Pima Co. per year (direct, indirect & induced output)</u>
Rosemont Copper/Augusta Resources	350-480	900-1,600	\$70,800	\$897,171,772	\$392,400,000
Ventana Medical Systems/Roche	500	1,263	\$71,500	\$184,000,000	\$223,326,356
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Bombardier Aerospace	120	254	\$60,796	Using existing space	\$46,008,633
APAC	160	267	\$44,597	Using existing space	\$23,924,091

According to Table 2, Ventana Medical Systems would provide the highest number of direct jobs, followed by the Rosemont Copper Mine. Regarding the total number of new direct, indirect and induced jobs, Rosemont Copper would come out on top if the number of direct jobs topped out at their highest range estimate. The highest wage jobs would be provided by

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Sargent Controls and DMAFB drone squadron. Note that for this analysis wage includes salary plus benefits, with one exception. The data available to us for Ventana Medical Systems expansion does not include benefits and would therefore be higher if it did include benefits.

Regarding the capital investment associated with the new jobs, Rosemont clearly comes out on top. Ventana Medical Systems, Oracle Ridge Mining LLC, and Sargent Controls all have some type of capital investment associated with their new or expanded job pool. A representative for DMAFB stated that they are still unsure whether they would make use of existing facilities or construct additional facilities, but either way would not impact previously undisturbed lands. Bombardier Aerospace and APAC would make use of existing facilities.

The estimates for "Total New Jobs Economic Benefit in Pima Co. per year (direct, indirect & induced output)" represent annual output (essentially annual sales revenues) associated with all direct, indirect and induced activities caused by the company's presence at the assumed employment level. Rosemont Copper's estimate came from the June 2011 report for TREO. Ventana Medical System's estimate came from TREO. For the rest of the companies, the IMPLAN model was used to calculate the estimate. Rosemont Copper comes out on top, followed by Ventana Medical Systems and Oracle Ridge Mine.

Note the total annual economic benefit to the community does not include the one time economic impacts associated with up-front capital investment or capital investments throughout the lifetime of the project or company. For many of these companies, sufficient detail was lacking regarding what constituted a company's capital investment. If that information was available, the impact of the capital investment could likely be calculated as well. We acknowledge that new building construction does have short-term economic and tax impacts. Certain items, like equipment, are likely to be imported into Pima County, which would suggest only a limited short-term contribution. Building construction would have a local impact, but the extent of that impact will be short-term in nature. We do know that the economic impact analysis of the proposed Rosemont Copper Mine performed for TREO estimates the total economic impact during the three to four year construction period at \$563.6 million.

Tax revenue estimates associated with these new or expanded businesses are also not included in this analysis. These were left out due to a lack of certainty as to the accuracy of the IMPLAN tax estimates and a lack of sufficient detail about the businesses.

Costs or Adverse Community and Environmental Impacts

The indicators to compare costs or adverse impacts include the following, several of which are greatly influenced by whether the new jobs require the construction of a new or expanded facility that would impact previously undisturbed land, the amount of previously undisturbed land impacted, and the location of the new or expanded facility:

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Land and Related Resources:

- Acres of undisturbed, natural land that would be impacted by new or expanded facilities
- Acres of land within the Conservation Lands System that would be adversely impacted
- Adverse impacts to Threatened or Endangered species
- Adverse impacts to historic and cultural resources
- Use of public land without compensation

Water:

- Adverse impacts to ground water supplies

Air:

- Adverse impacts to air quality

Transportation:

- Adverse impacts to transportation (traffic volumes, traffic safety or road conditions)

Dark Skies:

- Adverse impacts to dark skies critical to our astronomy industry

Recreation:

- Adverse impacts to recreation

These indicators and the scores given to each company were developed by County staff that have expertise in these topic areas (see list of staff copied at the end of this memorandum). It should be noted that we did not attempt to assign monetary values to these impacts.

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Table 3
Land & Related Resources

<u>Company</u>	<u>Total Acres of New Land Disturbance</u>	<u>Adverse Impacts to Conservation Lands System (acres)</u>	<u>Adverse Impacts to Threatened or Endangered Species</u>	<u>Adverse Impacts to Cultural Resources (# of sites)</u>	<u>Area No Longer Available for Recreation (acres)</u>	<u>Use of Public Land without Compensation</u>
Rosemont Copper/Augusta Resources	4,288	4,288	Yes	96	6,844	Yes
Ventana Medical Systems/Roche	24	24	No	1	0	No
Oracle Ridge Mining LLC	77	77	Potential	5	<1	No
Sargent Controls	0	0	No	0	0	No
DMAFB MQ-1/9 Squadron	0	0	No	0	0	N/A
Bombardier Aerospace	0	0	No	0	0	No
APAC	0	0	No	0	0	No

Regarding Table 3, Land and Related Resources, most of the indicators were measured by developing an outline of the new area of land disturbance and overlaying that outline over various mapping layers housed in our GIS library. For Rosemont Copper, the total acres of new land disturbance is cited in the September 2011 Draft Environmental Impact Statement (DEIS) for the preferred alternative (Barrel, p.96).

The County's Conservation Lands System (CLS) is a good region-wide proxy for health of our environment. While the lands included in the CLS were selected primarily due to their plant and animal diversity, these lands also serve to preserve natural floodplain functions and wide open landscapes that provide a variety of community and environmental benefits. The proposed Rosemont Copper Mine, expansion of Ventana Medical Systems and the re-opening of Oracle Ridge Mine would all have impacts to the CLS, but Rosemont's far surpasses the other two in scale. These three proposals also differ in their commitments to mitigate for impacts to the CLS. Mines are exempt from the County's CLS mitigation guidelines because mines in Arizona are exempt from counties' zoning and land use codes. Development activities within incorporated cities and towns are also not subject to the County's zoning and land use codes and are therefore exempt from the County's CLS mitigation guidelines. In some cases, some cities and towns have adopted policies or regulations similar to or based on the CLS mitigation guidelines. We are not aware of Ventana Medical Systems providing or proposing to provide mitigation for its 24 acres of CLS impacts or mitigation for other similar Town environmental development regulations. As for Rosemont Copper, the company is not volunteering to mitigate its 4,288 acres of impact to the CLS. Oracle Ridge Mine, however, is volunteering to fully mitigate its 77 acres of impacts to the CLS by purchasing and donating to the County property within the same watershed.

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For impacts to Federally listed Threatened and Endangered Species, new areas of disturbance were overlaid on the County's Priority Conservation Area (PCA) maps for Threatened and Endangered species. The only two projects that contained PCAs for one or more of these federally listed species were Rosemont and Oracle Ridge Mine. The Forest Service has identified 10 federally listed Threatened or Endangered species that may have a reasonable potential to occur in the proposed Rosemont Mine analysis area. Three of the ten species have designated critical habitat in the analysis area: the Chiricahua leopard frog, Gila chub, and Mexican spotted owl. The southwestern willow flycatcher has proposed critical habitat within the analysis area. According to the DEIS, direct impacts are expected for Chiricahua leopard frog, lesser long-nosed bat, and Pima pineapple cactus. Rosemont Copper will be required to mitigate for impacts to federally listed Threatened and Endangered species. Surveys for four federally listed species were conducted at and in the vicinity of the Oracle Ridge Mine. Portions of the project are in designated critical habitat of the Mexican spotted owl, and one spotted owl call was documented south of the project area. No other federally listed species were detected. No determination has been made as to whether the Oracle Ridge Mine is expected to actually impact the Mexican spotted owl.

For impacts to Cultural Resources, the number of known sites within the new areas of disturbance were cited. For Rosemont, the Forest Service's DEIS sited a total of 112 prehistoric, historic, traditional cultural, and multicomponent sites that would be impacted by the preferred alternative (p. 667). Nearly all of these sites have been deemed archaeologically or historically significant and eligible for listing in the National Register of Historic Places. Most affected sites will be physically destroyed by ground-disturbing mine actions or by being buried forever beneath vast piles of waste rock and tailings. For Ventana Medical Systems, a state-wide cultural resource database known as AzSite provided information on one small Hohokam site, probably dating between 850-1200A.D. The site was excavated in 2000, so its integrity is probably disturbed making it unlikely to be eligible for the National Register. For Oracle Ridge Mine, five sites were listed in a recent report by Antigua Archaeology conducted for the company, dated May 29, 2012. None of these five sites are considered historically significant, none are eligible for listing on the National Register of Historic Places, and the proposed mine actions will have little or no effect on these sites.

For impacts to recreation, we used the indicator included in the Forest Service's DEIS for Rosemont: the area, in acres, no longer available for recreation. For Rosemont, the preferred alternative would result in 6,844 acres being enclosed within a perimeter fence for 25 years (p.512). The types of recreation that occurs in this area as cited in the DEIS includes motorized vehicle touring, wildlife watching, nature study, bird watching, recreational prospecting, hunting, rock and mineral collection, picnicking, mountain biking, hiking and horseback riding (p.511). Oracle Ridge Mine would not have similar perimeter fence around the entire project and the far majority of areas of new disturbance would be on private land. As a result of the proposed re-opening of the mine, the largest single area of new disturbance to public land that may take land out of possible recreation use is the proposed helipad on 0.26 acres of Forest Service land.

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Table 3 also compares the new or expanded businesses with regard to their use of public land without compensation. In the case of Rosemont Copper, the proposed mine would directly impact thousands of acres of National Forest land (unpatented mining claims) without compensation. The Forest Service, unlike other land management agencies, does not require royalties or payment for use of the property beyond minimal annual fees to retain control of the mining claims. To our knowledge, Rosemont Copper has not offered a land exchange or donation of property that would fully compensate the public and Federal government for the use of and permanent impacts to these public lands. Regarding the Oracle Ridge Mine project, the majority of the project is on private property. Minor facilities and right of way across National Forest and Pima County lands are also proposed. Although the issue of compensation for use of these lands will not be fully known until the Forest Service’s permitting process is further along, a representative for the Company has stated that commitments will be made to fully compensate for these impacts or uses of the public property. As examples, in the case of the National Forest lands, the company would provide use of a helipad to the Forest Service, materials for maintenance of roads, and water for use in firefighting. In the case of the County lands, a land exchange is being discussed that would fully compensate Pima County for impacts to County-owned land. Bombardier is located on City of Tucson land, but according to the City Manager’s Office, pays market level rent to the Tucson Airport Authority. The Tucson Airport Authority, however, rents the property from the City of Tucson for \$1.00.

Overall, when it comes to adverse impacts to land and related resources, only three of the seven new or expanded businesses would involve new land disturbance. Of those three, Rosemont Copper clearly ranks top. With the destruction of over 4,200 acres of previously undisturbed land, mostly within the Coronado National Forest, Rosemont’s impact to land and related resources dwarfs the other two.

Table 4
Impacts to Resources

<u>Company</u>	<u>Water</u> <u>Adverse</u> <u>Impacts to</u> <u>Ground</u> <u>Water</u> <u>Supplies</u>	<u>Air</u> <u>Adverse</u> <u>Impacts</u> <u>to Air</u> <u>Quality</u>	<u>Transportation</u> <u>Adverse</u> <u>Transportation</u> <u>Impacts</u>	<u>Dark Skies</u> <u>Adverse</u> <u>Impacts to</u> <u>Dark Skies</u>
Rosemont Copper/Augusta Resources	High	Yes	medium-high	High
Ventana Medical Systems/Roche	Low	No	medium	Low
Oracle Ridge Mining, LLC	Medium	No	low	Low
Sargent Controls	Low	No	medium	Low
DMAFB Drone Squadron	Low	No	low	Low
Bombardier Aerospace	Low	No	low	Low
APAC	Low	No	low-medium	Low

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Table 4 shows how these new or expanded businesses measure up when it comes to water use, impacts to air quality, transportation impacts, and impacts to dark skies. With regard to ground water supplies, the new or expanded facilities were compared to each other based on the amount of water to be used, the source or sources of the water, and whether the water would be replenished. Adverse impacts to air quality were defined as whether the new or expanded facility would result in violation of ambient air standards in the area. For adverse transportation impacts, the new or expanded facilities were compared to each other based on expected traffic volumes, impacts to traffic safety, and wear and tear on the roads.

Adverse impacts to dark skies were estimated based on the location of the new or expanded facilities, and spectra and lumen quantity. With regard to location, Rosemont Copper Mine and Oracle Ridge Mine would be in lighting area E1a, according to the 2012 Tucson/Pima Outdoor Lighting Code, with all other facilities located in less protected areas. With regard to spectra and lumen quantity, it was assumed that all facilities, with the exception of Rosemont Copper Mine, would conduct most operations indoors and utilize exterior lighting primarily for parking and building access, which limits lumen output and spectra to the lowest possible impact for these types of commercial facilities. This includes what we know about Oracle Ridge Mine's proposed operations.

Across all of these additional indicators, Rosemont again has the greatest adverse impacts to the community and environment.

Summary

Table 5

<u>Company</u>	<u>Direct Jobs</u>	<u>Direct Jobs as a % of Rosemont's</u>	<u>Acres of Conservation Lands System Impacted</u>	<u>Acres of Conservation Land System Impacted as a % of Rosemont's</u>
Rosemont	350-480	100%	3,648	100%
Ventana Medical Systems	500	104%	24	.01%
Oracle Ridge Mining, LLC	240	50%	77	.02%

Clearly, Rosemont and Ventana Medical Systems would provide the greatest economic benefits when economic benefits are looked at without examining the costs. But Rosemont is also at the top of the list when it comes to adverse impacts to the community and the environment. Table 5 compares Rosemont, Oracle Ridge Mine, and Ventana Medical Systems based on the number of direct new jobs (a measure of economic benefit) and impacts to the CLS (a measure of adverse impacts to the environment). Ventana Medical Systems exceeds

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Rosemont in number of direct jobs at a fraction of the impacts to the CLS. Two Oracle Ridge Mines would equal the number of Rosemont jobs, again at a fraction of the impacts to the CLS. Similar results were found regarding the level of adverse impacts Rosemont would have on other land related resources, as well as air quality, water, transportation and dark skies, in comparison to these other job generating opportunities.

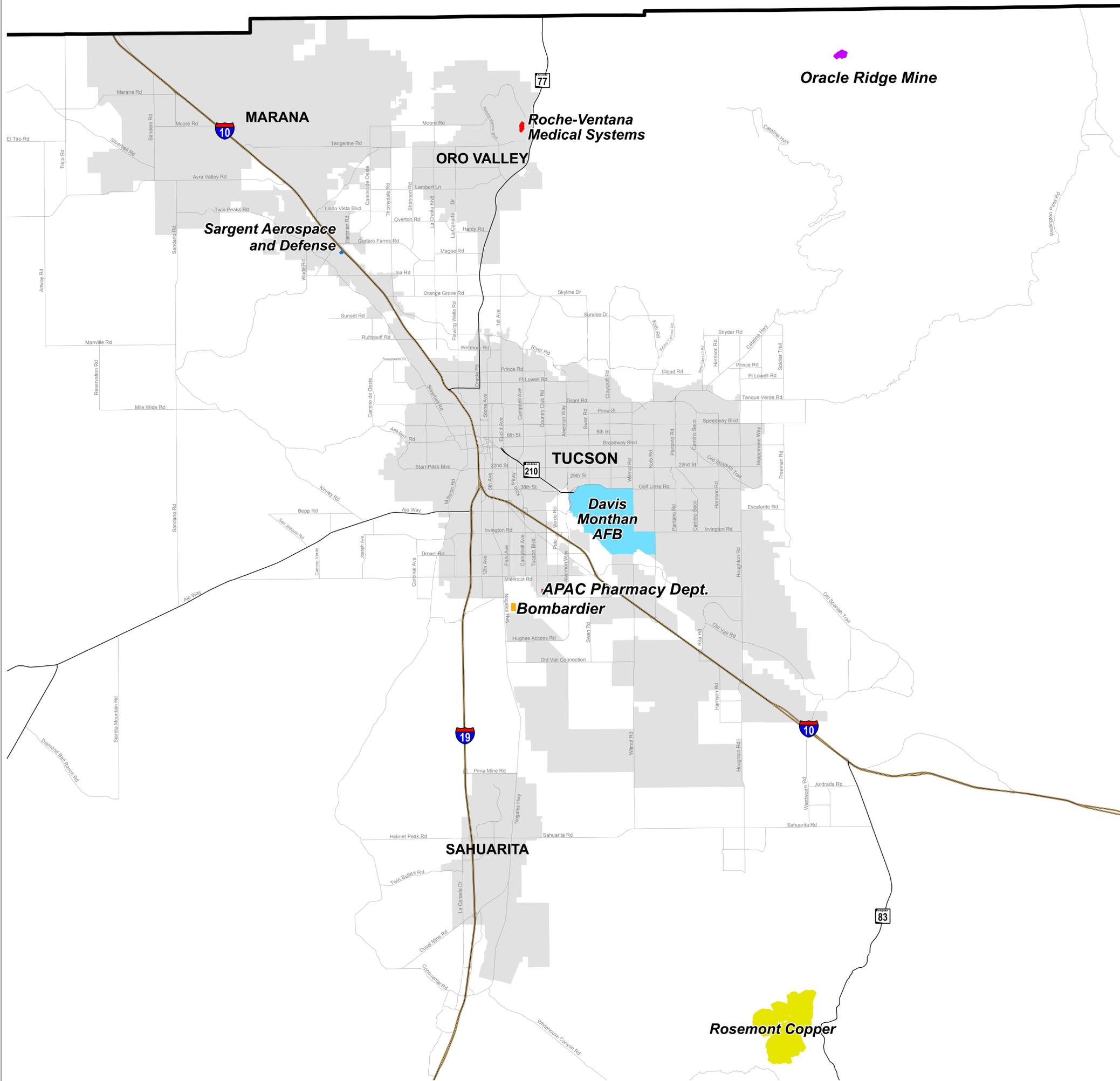
NF/dr

Attachment

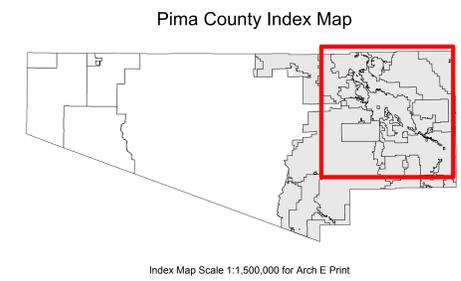
c: Hank Atha, Deputy County Administrator for Community and Economic Development
Ursula Kramer, Department of Environmental Quality
Kathy Chavez, Regional Wastewater Reclamation
Craig Horn, Finance Department
Julia Fonseca, Office of Sustainability and Conservation
Loy Neff, Office of Sustainability and Conservation
Neva Connelly, Office of Sustainability and Conservation
Mike List, Geographic Information Systems Division
Kerry Baldwin, Natural Resources, Parks and Recreation
Jonathan Crow, Department of Transportation
Chris Poirier, Development Services Department
Yves Khawam, Development Services Department

ATTACHMENT 1

Benefits & Costs Comparison for New Companies & Expansions in Pima County



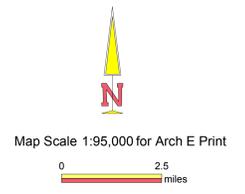
-  Towns and Cities
- Employers**
-  APAC Pharmacy Department
-  Bombardier
-  Davis Monthan AFB
-  Roche-Ventana Medical Systems
-  Rosemont Copper
-  Sargent Aerospace and Defense
-  Oracle Ridge Mine



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12/15/2011

ATTACHMENT 2



**ECONOMIC IMPACTS OF
THE ROSEMONT COPPER PROJECT
ON PIMA COUNTY, ARIZONA**

PREPARED BY:

**APPLIED ECONOMICS
11209 N. TATUM BLVD, SUITE 225
PHOENIX, AZ 85028**

June 2011

1.0 Introduction

Applied Economics was retained by Tucson Regional Economic Opportunities (TREO) to perform an economic impact analysis of the construction and operations of the Rosemont Copper Project, located in Pima County, Arizona. Applied Economics has been specifically tasked with evaluating the economic impacts that the mine would create through its direct operations, local supplier purchases and employee spending. The potential impacts of the mine on the value of public lands, the tourism industry, air and water quality, wildlife habitat, astronomical observation conditions and recreational and cultural resources are not addressed in this analysis.

The Rosemont project site, located about 30 miles southeast of Tucson, is best described as a 4,400 acre proposed project footprint, within the 15,000 acre Rosemont claim block, within the Helvetia/Rosemont mining district. The ore-body covers about a 700 acre pit. The remaining acres are for ancillary activities including crushing, grinding, mineral processing, and waste rock and tailings management. The Rosemont deposit is primarily a copper deposit but also includes significant amounts of molybdenum and silver. Augusta Resource Corporation projects that the Rosemont Mine would have an active life of about 21 years. This analysis includes the impacts of mine construction as well as the 21 year operations of the open pit mine, the associated processing facilities and general administrative operations.

The capital costs to develop the mine and related processing facilities are estimated at \$897.2 million, a portion of which would be spent in Arizona. Mine construction would take about 3 to 4 years, referred to as the pre-production period. Once the mine was operational, it would be productive for approximately 21 years, producing an estimated 4.077 billion pounds of copper concentrate. Total employment would vary between 351 and 478 people during that period, depending on the projected level of mine production. The company would also make between \$90.4 million and \$158.1 in annual purchases from local vendors. Figures included in the report are based on current information provided by Rosemont Copper Company in 2008 dollars.

The information and observations contained in this report are based on our present knowledge of the components of development, and of the current physical, socioeconomic and fiscal conditions of the affected areas. Estimates made in this analysis are based on hypothetical assumptions, current tax policies, and the current economic structure of the region. However, even if the assumptions outlined in this report were to occur, there will usually be differences between the estimates and the actual results because events and circumstances frequently do not occur as expected. This analysis is based on the best available information and is intended to aid Augusta Resource Corporation in demonstrating the impacts of the Rosemont Copper Project on Pima County. In no way will Applied Economics be held responsible or have any liability or be subject to damages as a result of this analysis. This report may be used only for the purposes that it was intended.

2.0 Impact Summary

The economic benefits resulting from the Rosemont Copper Project include the direct activity created by the mining and processing operation, as well as the impacts created by local supplier purchases and employee spending. Economic impacts measure the effects of economic stimuli, or expenditures, in the local economy. All industries have some kind of economic impact in the rest of the economy. Resource-based industries like Rosemont that pay higher wages and also make a significant amount of local purchases create greater local economic impacts than firms that do not possess these characteristics. Economic impacts shown here include direct and indirect jobs, personal income, and economic activity, or output, that could be generated by the Rosemont Copper Project. Indirect impacts are the result of the multiplier effect and capture supported supplier and consumer businesses and their employees throughout Pima County that could benefit from this project.

The operations of the Rosemont Copper Project detailed in this analysis provide substantial economic benefits to Pima County. These positive impacts include the following:

Economic Impacts

- **Overall Operations Impacts.** All total, the Rosemont Copper Project could create a total impact of \$9.0 billion on the Pima County economy over the 21 year life cycle, or about \$392.4 million per year. The operations of Rosemont directly and indirectly support an average of 1,600 jobs per year and \$75.2 million in annual personal income in Pima County.
- **Jobs and Income.** The project would directly employ 350 to 480 people with a combined payroll of \$19.5 million to \$26.2 million annually. Through the multiplier effect, an additional 900 to 1,600 jobs and \$42.1 million to \$74.0 million in annual payroll are supported at other businesses throughout Pima County. These additional jobs and payroll stem from direct and indirect impacts of supplier demand created by Rosemont and consumer demand created by its employees.
- **Local Vendor Spending.** Rosemont will make an estimated \$90.4 million to \$158.1 million in annual local purchases for various services and supplies throughout the life of the project, representing about 81 percent of total vendor purchases. Based on the share of purchases that are made locally, the economic impact of vendor purchases on Pima County is estimated at \$127.1 million to \$225.2 million per year, or \$3.6 billion over the life of the mine. This impact is included in the overall operations impact above.
- **Employee Spending.** Another component of the operations impact comes from employee spending. The 350 to 480 employees working at the mine and related processing facilities also make a significant amount of local purchases. The effect of employee purchases could generate a total economic impact of \$21.7 million to \$29.2 million on the county each year, or a total of \$576.3 million over the life of the project.

- **Construction Impacts.** In addition to the operations impacts described above, the Rosemont Copper Project will also result in a total capital investment of \$897.2 million. This figure includes \$355.7 million in local construction spending including labor, materials, subcontractors, engineering and project management and equipment rentals that create economic impacts in Pima County. The total economic impact during the three to four year construction period is estimated at \$563.6 million, supporting about 4,100 direct and indirect jobs and \$194.0 million in personal income.

Revenue Impacts

- **Direct Revenue Impacts.** The Rosemont Copper Project could generate a significant amount of direct tax revenues to state and local governments, in addition to the economic impacts described above. Annual property taxes paid by the company are estimated at \$3.5 million per year. Rosemont is also subject to severance taxes in Arizona that are estimated at an average of \$2.8 million per year. Finally, the project could generate an estimated \$11.0 million in one-time construction sales tax during the pre-production period. Total direct revenues over the life of the mine are estimated at \$136.7 million, based on a copper price of \$1.85 per pound.
- **Indirect Revenue Impacts.** In addition to direct revenues, the direct and indirect employees supported by the Rosemont Copper Project could generate a significant amount of indirect property, sales and personal income tax revenues through employee spending and property ownership. Indirect revenues are estimated at an average of \$4.7 million per year to state and local governments, or a total of \$107.6 million over the life of the mine.

Ventana Medical Systems

WEDNESDAY, 12 JANUARY 2011 20:53 LARRY COPENHAVER

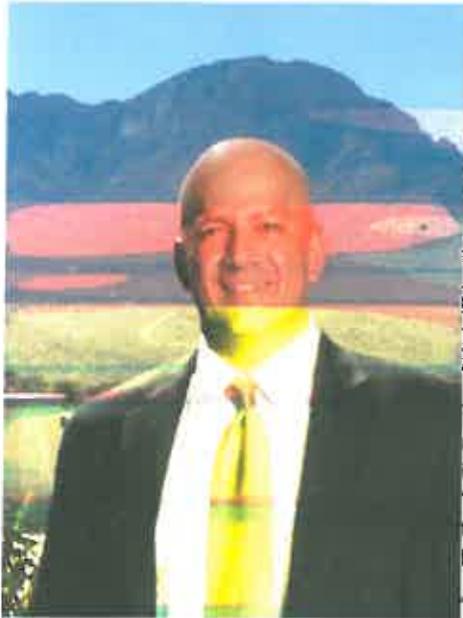


photo: Chris Mooney

The dramatic expansion of research innovator Ventana Medical Systems in Oro Valley may be the medical technology boost that local leaders have been hoping for to catapult the Tucson region into the international arena as a biosciences powerhouse.

Ventana, a member of Swiss-based Roche Group, announced in October that in the next five years its headquarters in Oro Valley's Innovation Park will gain 500 new jobs, as well as a capital investment of \$184 million for new buildings and equipment. Ventana is the world's leading tissue-based cancer diagnostics company.

The planned expansion translates into an economic impact of \$640 million over 10 years for the region, reflecting the ripple effect of jobs, capital investment and increased productivity.

The Ventana expansion will involve more in-house research, new areas of research and possibly acquisition of other companies, according to Hany Massarany, president and CEO of Ventana. A year ago he told BizTucson, "Our plan is to continue to drive technology innovations and develop new tests that will improve patients' lives and take the company to over \$1 billion in sales by 2014."

"It's an amazing coup. We could become the bioscience center of the United States," said Pima County Board of Supervisor Sharon Bronson.

"Tucson is the buzz in national circles," said Joe Snell, president of Tucson Regional Economic Opportunities (TREO), whose job it is not only to attract new businesses but also to foster a desire among companies already here to stay and expand.

"Since Ventana was bought by Roche (in 2008), we wanted to ensure that Ventana remains in the region," Snell said. Ventana had many options and it was his job to demonstrate that Tucson/Oro Valley was the best choice.

"This was a very competitive process. We had to demonstrate that we have the talent to fill those jobs and jobs into the future," he said.

Neil Simon of Venture West, owner of Innovation Park, said a lot of credit goes to the University of Arizona. "The University is an extremely important part in providing the quality employees for this type of operation," Simon said. Those employees bring the talent needed to foster the development of a bioscience cluster creation. "The expansion is wonderful for Innovation Park and it's good for Tucson," he said. "This has put us on the map.

Securing the Roche expansion in Oro Valley took some nifty negotiations – nearly 11 months of them, Snell said. TREO, the Town of Oro Valley, Pima County and the State of Arizona worked undercover as a team to aggressively land the deal. The team came up with a multi-million dollar package of performance-based incentives.

This short-term investment is expected to yield long-term gains. During the initial 10 years, the capital improvements by Ventana are expected to net nearly \$3.5 million in new revenue to the county. After the first decade, Ventana is expected to be paying at least \$1.5 million annually in taxes – and into the foreseeable future.

Ventana, which now employs more than 900 local employees, was started and incorporated 25 years ago in the garage of UA professor and pathologist Thomas Grogan. He developed a way to automate the processing of biopsies, resulting in faster and more accurate diagnoses.

In 2001 the company moved to three buildings in Oro Valley. When Roche paid \$3.1 billion for Ventana two years ago, its innovative diagnostic systems were in use in 55 countries. Today the company occupies seven buildings providing research and administration facilities across some 345,000 square feet of floor space near the western face of the Santa Catalina Mountains.

In attracting Ventana's expansion, the State of Arizona and Oro Valley also provided economic development incentives, Pima County Administrator Charles H. Huckelberry told the supervisors in a memo. The state offered an incentives contribution of \$3 million paid from federal stimulus funds. Oro Valley offered a rebate of infrastructure impact fees that

is subject to company construction performance and is capped at \$1 million.

Supervisor Bronson said, "The county had the most skin in the game." That included \$8.2 million over the 10-year life of the agreement. "We wouldn't have done that if there was not a great payback."

The agreement includes incentives for over-performance – that is if Ventana exceeds the 500 promised jobs. It also includes a provision that if the total economic incentive of \$8.2 million in property tax reduction is not achieved within 10 years, the agreement can be extended for two additional years. The tax relief from the county would be capped at \$10 million.

Meanwhile, taxing jurisdictions such as Amphitheater Public Schools, Pima County Joint Technical Education District, Golder Ranch Fire District and Pima Community College would receive payment directly from the company, in lieu of taxes.

Supervisor Ann Day, whose district includes Oro Valley, said, "A prestigious bioscience firm like Ventana Medical Systems is exactly the kind of company we want to see expanding at beautiful Innovation Park. It has tremendous significance for Oro Valley, Pima County and all of Arizona."

The expansion will provide a huge boost to the job market for all of Pima County. Ventana's staffing needs range from high-tech research and development, engineering and chemistry to qualified white-collar office and sales positions. With the quality of the Oro Valley area public schools, Pima College and the UA, the talent is now and will continue to be readily available, said Oro Valley Mayor Satish Hiremath.

He also pointed out that the construction industry is ready and able to help Roche with any needed building development. Oro Valley can guarantee a faster turnaround. Where in most parts of the country, construction might take 18 to 24 months, Oro Valley contractors can get the job done in nine to 12 months, Hiremath said.

"It's my job to get developers to take a look at Oro Valley," the mayor said. While Oro Valley once had a reputation of not being expeditious in getting construction projects permitted and processed, that has changed. "If there's going to be a hold up in a project, it would not be Oro Valley that's the obstacle," he said. "We cannot make good companies jump through too many hoops. If we make it difficult, they could pick up their ball and play someplace else."

Hiremath is optimistic that Ventana's choosing Oro Valley could attract other biosciences companies. He said, "I like their clean businesses and the Tangerine Road corridor is ready for development." He also anticipates this could lead to small business growth as well – such as restaurants and dry cleaners. That's good for the town.

Hiremath explained that Oro Valley has no property tax, so a large portion of operating revenues comes from sales tax. Some 28 percent of the town's revenue comes from state-shared sales tax. Another 22 percent comes from local sales tax. The remaining revenue is derived from various sources including construction permits and hotel bed taxes. With only 14 to 16 percent of the town's land remaining available for development, sales taxes will continue to grow in importance to the town.

Gov. Janet Brewer said Ventana is an asset to Arizona, both from health care and economic development perspectives. "Modern medical research is dedicated to improving the lives of all patients who have cancer, and the people of Ventana continue to discover, develop and deliver medical diagnostic systems that are shaping the future of health care – and it's happening right here in Arizona," Brewer said.

Ventana is dedicated to improving the lives of all patients with cancer by discovering, developing and delivering medical diagnosis systems and slide-based cancer tests that are shaping the future of health care, Brewer added.

Ventana is innovating tissue diagnostics for labs and hospitals worldwide, offering a diverse menu of solutions for patient care. As slide-based tissue diagnostics advance, the opportunity for patients to lead longer, healthier lives improves.

Not only are things bright for Ventana but also for sanofi-aventis, a leading global pharmaceutical company with ties to the University of Arizona and Oro Valley Hospital. All are helping to carry the area's health care reputation to faraway places.

Other facets attracting increased focus on Tucson as a hub for bioscience research are the Critical Path Institute, a group dedicated to help shorten the critical path for developing new medical products, and the UA Bio5 Institute.

"On behalf of everyone at Ventana and Roche, I would like to thank the state and local supporters for helping our company grow and prosper here, and for their commitment to developing Southern Arizona into one of the premiere bioscience regions in the United States," said Ventana's Massarany.

So, if the Tucson Region is to continue to grow and prosper in the bioscience field, where do we go from here?

"We've got to feel good about Ventana – and the expansion at Sargent Controls & Aerospace in Marana – but we can't let up on the gas pedal," Snell said. "Perceptions are important, and with good things happening in Tucson, perceptions nationally and internationally of this area are positive.

"So now is the time to go out and win. It's time to go out and get it done," Snell added. "We are nobody's little brother."

LAST UPDATED (SUNDAY, 12 JUNE 2011 22:09)

SITE Selection ONLINE

ARIZONA

From Site Selection magazine, September 2009



Help Wanted

Acquisition fuels growth surge, expansion among the Saguaro.

by **MARK AREND**
mark.arend@conway.com

When Swiss pharmaceutical and diagnostics giant **Roche** completed its acquisition of Tucson-based **Ventana Medical Systems** in February 2008, some wondered how – or where – the maker of tissue-based diagnostics systems would maintain its gazelle-like growth rate. They need not have worried. Even with all the area's solar energy industry investment, Ventana is turning into a major Tucson-area employer that will soon cross the 1,000-employee mark. Not bad for a start-up launched outside the traditional biotech clusters.

Roche bought the company, founded in 1985 by University of Arizona pathologist Dr. Thomas Grogan, to fill a gap in its line of personalized healthcare offerings. Ventana had pioneered an automated method of cell staining for cancer testing and personalized treatment, and was the market leader in that niche at the time of its acquisition.



Gregg Forszt, director, facilities, Ventana Medical Systems, Inc.

What Recession?

Today, with parent Roche's blessing, Ventana is in the midst of an ambitious expansion at its 60-acre (24-hectare) headquarters campus in Oro Valley, northwest of Tucson.

"We have a master plan that takes us out 10 years plus," says Gregg Forszt, director, facilities. "We have six buildings at about 350,000 square feet [32,500 sq. m.] today, and this plan would take our expansion up to as many as 14 buildings with a central utility plant and parking garages.

"All of this is predicated on our continuing to be successful in our marketplace and on being successful worldwide within the Roche group," he adds.

Both of which are a safe bet.

"Our growth plans are fairly aggressive," Forszt explains. "We see our bottom line growing at a rate of about 20 percent per year, and we are planning headcount growth of approximately 10 percent per year." About 900 people work at the Oro Valley campus right now; 80 positions were open in mid-August, and the company plans to bring on about 100 more within the next year.

Phase 1 of the master plan is now getting under way, and



Ventana Medical Systems, acquired by Roche in 2008, plans to more than double its real estate footprint at its headquarters campus north of Tucson during the next 10 years.

involves a 115,000-sq.-ft. (10,680-sq.-m.) R&D facility, a parking garage and a central utility plant. Ventana's current footprint occupies just 22 acres (9 hectares) of the total parcel, so there's plenty of room to expand, notes Forszt, adding that the Tucson area, with a population of about 1 million, can supply most of the work force needed.

"For some of the very technical positions, we recruit in the San Diego and Boston areas," he relates, but Tucson is not a hard sell to out-of-towners. "It's a slower pace of life than in Phoenix, and it's six or seven degrees cooler, too. There's a lot to be said for Tucson."

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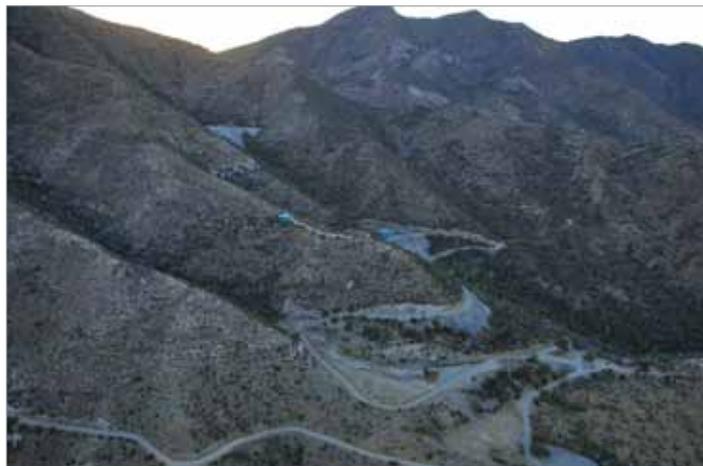
ORACLE RIDGE COPPER PROJECT: An Underground Mine

The Oracle Ridge Mine is an underground copper mine located on private property on Marble Peak in the Santa Catalina Mountains. The mine was first established in the late 19th century, and the mine operated on and off until 1996, when it closed due to the fall of copper prices. The proposed mine restart will be operated by Oracle Ridge Mining, LLC. The owners are in the permitting and detail design stage for resuming operations using state-of-the-art best available demonstrated control technology (BADCT).

OVERVIEW

The former Oracle Ridge Mine, located on private property, is an inactive, small-scale underground copper mine. Oracle Ridge Mining, LLC is in the permitting and detail design stage for resuming operations using state-of-the-art best available demonstrated control technology (BADCT). The proposed mine operation would utilize the same surface footprint as in previous operations as much as possible.

The existing Reclaimed Tailings Facility is also located on private property. The current plan for the proposed project would utilize the existing tailings facility footprint and expand it to accommodate the current mine plan. As designed, the tailings facility would be a state-of-the-art lined dry-stack facility utilizing BADCT. The tailings from the existing facility would be excavated and incorporated into the new lined facility. The facility would be constructed and concurrently reclaimed in stages throughout the life of the mine to minimize visible disturbance.



LOCATION

The mine portal entrances are located on the north side of Marble Mountain. The primary access to the mine will be from the existing Black Hills Mine Road (FR 4450), which is located about three miles west of San Manuel. The Black Hills Mine Road was used by the former operation as its main access.

COMMUNITY

Oracle Ridge Mining, LLC is a responsible community partner, a source of employment, a good neighbor, environmentally responsible and a source of economic stimulus for the community. The proposed restarted operations would incorporate improved engineering controls and BADCT designed to protect the environment.

PROPOSED OPERATIONS

The mine is in the permitting and detail design stage for resuming operations using state-of-the-art BADCT. Current plans include up to 240 employees bused to and from the site from San Manuel. Approximately 140 tons of copper concentrate would be produced per day. This is equivalent to about five to seven round trips per day on the Black Hills Mine Road, transported by highway haul trucks. Transportation plans include using a short segment of Old Mount Lemmon Road (FR 38 or Control Road) from the mine and the entire length of Black Hills Mine Road (FR 4450) to SR 76 through San Manuel. A traffic study has been performed, and an impact analysis report is in progress.

ORACLE RIDGE COPPER FACT SHEET

FIRST QUARTER 2012

ENVIRONMENTAL STUDIES

Oracle Ridge Mining, LLC will use state-of-the-art best available demonstrated control technology (BADCT) practices, including dry-stack tailings and liner systems, water reclamation, site water management and groundwater monitoring. Additional groundwater monitoring wells were installed in third quarter 2011 to collect baseline data and will be used to verify that engineering controls for resumed operations function as designed. Mine processes have been designed to minimize environmental impact, limit air emissions and protect groundwater quality. The majority of proposed mine development is planned to occur within previously disturbed corridors and areas. Environmental activities that are underway include biological, archeological and cultural surveys, groundwater sampling, spring sampling, weather monitoring, stormwater sampling, jurisdictional delineation surveys and traffic studies. A stormwater best management practices plan and a stormwater pollution prevention plan have been prepared for the site.

REGULATORY & PERMITTING PROCESS

Before operations may resume, a number of environmental studies must be completed and permits obtained. The permitting process is inclusive and transparent, providing opportunities for public participation and comment.

The following regulatory and permitting processes will have a public comment or involvement period:

- Arizona Department of Environmental Quality Aquifer Protection Permit (APP)
- Pima County Air Permit
- National Environmental Policy Act (NEPA)
- US Army Corps of Engineers 404 Permit



PROJECT AREA MAP AND INSET



AREA OVERVIEW

CONTACT INFORMATION

More information will be available as the project moves forward.

Website:

www.oraclecopper.com

If you have any questions or comments, please contact Melissa Anguiz, Gordley Group, Community Outreach, at 520-327-6077.

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Fax: 520-329-8296



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Additional >> U.S. Representative Gabrielle Giffords Praises Sargent's Expansion

Bruce Suppes of CB Richard Ellis represented the Seller in the Sargent transaction. Steve Cohen of PICOR Commercial Real Estate Services represented Sargent in the acquisition of the DS Waters building.

Contact TREC:
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 (520) 243-1940 office, (520) 609-5972 or laura.shaw@treoaz.org

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Sargent Announces Facility Expansion in Southern Arizona

Tucson, Arizona, June 22, 2010 – Sargent Aerospace & Defense, a leading supplier of precision engineered components and aftermarket services, and an operating company within Dover Corporation's (NYSE: DOV) Industrial Products Segment, announced today that it has chosen the Tucson region to expand and upgrade its operations in support of current and projected business growth.

The company, headquartered in Marana, Arizona, part of the greater Tucson region, since 1990 and currently employing approximately 250 people locally, will expand its current 60,000 square foot facility at 5675 West Burlingame in Marana. Sargent has purchased four acres within the Peppertree Ranch Business Park (south of its current headquarters) and will build a projected 70,000 square-foot facility adjacent to the existing plant.

With the new campus, Sargent will implement an engineering design and qualification lab center of excellence, while incorporating operational improvements and environmentally responsible building elements. The increased capacity is required to support the growth of key programs such as the VIRGINIA class submarine, the new Boeing 787 and Airbus A350 commercial aircraft, and Lockheed Martin's F-35 Joint Strike Fighter.

Sargent anticipates this growth, coupled with new development activity, will add new jobs in the areas of specialty aerospace design, manufacturing, test engineering, program management, and highly-skilled manufacturing such as computed numerically controlled (CNC) machine programmers, operators, and test technicians.

"Our decision to expand in the greater Tucson region, specifically Marana, was driven by a need to retain a strategic location with a culturally diverse employment base. Being close to California and Mexico allows us access to both key aerospace suppliers and our existing manufacturing plants via a well-established transportation network. Southern Arizona provides long-term value while maximizing productivity and supporting our growth plans," said Scott Still, president, Sargent Aerospace & Defense.

"As Marana's largest, private, non-retail employer, Sargent has been a cornerstone of our community for nearly twenty years. This project will be a top priority and fast-tracked through the development process," said Ed Honea, Mayor of Marana.

"This was a very competitive site selection process and is now another feather in the hat for the Tucson region. We are a Top 5 Metro area nationwide for aerospace & defense, and Sargent has chosen the best place to grow and prosper for many years to come," said Joe Snell, president & CEO, TREC.

About Sargent

Founded in 1920, Sargent Aerospace & Defense is a premier global supplier of precision-engineered customized components as well as flight-critical aftermarket aviation services. Leveraging 90 years of expertise, Sargent directly contributes to the safe operation of countless commercial and military aircraft and rotorcraft, submarines and land-based vehicles. Sargent's continuing investment in people, assets, technology and process quality ensures excellence and is integral to the company's commitment to customers and their end-users. For more information, visit www.sargentaerospace.com.

About Dover Corporation

Dover Corporation is a global portfolio of manufacturing companies providing innovative components and equipment, specialty systems and support services for a variety of applications in the industrial products,



New unit would bring 280 jobs to Tucson

Air Force eyes D-M for drone squadron

Becky Pallack Arizona Daily Star | Posted: Thursday, November 3, 2011 12:00 am

Davis-Monthan Air Force Base is one of three finalists to become the home of a new active-duty squadron.

If selected, 280 jobs would come to Tucson.

The other finalists are Joint Base Pearl Harbor-Hickam in Hawaii and Shaw Air Force Base in South Carolina. A choice could be made as early as next month.

Once it finds a home base, the unit will handle unmanned aerial vehicles, but no remotely piloted aircraft would come to Tucson.

The group here would be a ground control station for MQ-1B Predators and MQ-9 Reapers used on air-support and intelligence missions.

The Air Force will send a team of majors and lieutenant colonels here to evaluate D-M on various criteria to see how well it suits the mission, said Ann Stefanek, an Air Force spokeswoman.

The criteria include mission requirements, training requirements, facilities and infrastructure, support capacity, environmental impacts and cost.

Gov. Jan Brewer said she is "thrilled" D-M is a finalist and pledged to help the evaluation team, because "a strong military makes for a strong Arizona."

A draft resolution from the Pima County Board of Supervisors to support the selection of D-M lists more than a dozen reasons why Tucson would be a good home for the squadron. Among them: Similar units and support services are already based in the region, there's room to grow at D-M, and Tucson has clear skies and no hurricanes.

Did you know?

Cruising speed for an MQ-9 Reaper is about 230 mph.

Contact reporter *Becky Pallack* at bpallack@azstarnet.com or 573-4346.

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Drone aircraft could bring 300 jobs to Davis-Monthan AFB



Submitted by [Christina Thompson](#), KOLD News 13 Community Web Producer
Thursday, October 20th, 2011, 4:20pm

Topics: [News](#), [Transportation](#)



Photo of a MQ-1B Predator/Reaper. (jimtxas via Flickr)

Davis-Monthan Air Force Base is one of the finalists for a ground control squadron operating drone aircraft.

The squadron would be in charge of the MQ-1B Predator/Reaper aircraft.

D-M is one of three bases in the running.

The aircraft would bring nearly 300 personnel to D-M, as well as help secure the Arizona-Mexico Border.

U.S. Senator John McCain released the following statement regarding the U.S. Air Force's announcement Thursday that Davis-Monthan Air Force Base in Tucson is one of three finalists being considered by the Air Force for the stationing of a MQ-1B Predator/Reaper Unmanned Aerial System ground control squadron:

"I applaud the U.S. Air Force's announcement today that Davis-Monthan Air Force Base in Tucson is one of three bases selected for further consideration to station the control stations for a MQ 1/B Predator Squadron. This announcement is consistent with my strong belief that the unique surveillance capabilities of the Predator should be used to secure our southern border. Basing additional ground stations alongside those proudly being operated by the Arizona Air National Guard will not only bring 280 personnel to Davis-Monthan, but will allow for the coordination of potential Predator missions with other federal agencies working throughout Southern Arizona to support the national homeland defense priority of deterring or detecting illegal entry into our country. I look forward to working with the citizens of Tucson and Pima County, including the DM-50, and the Arizona delegation to bring the additional MQ-1/B Squadron to Davis-Monthan AFB."

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Bombardier adding up to 200 jobs in Tucson

Updated: Oct 11, 2011 2:17 PM MST

TUCSON, AZ (KOLD) - Bombardier announced today that it is expanding its service center operation in Tucson and plans to add 100 to 200 jobs.

The jobs are expected to be in highly-skilled technical positions such as airline mechanics and production-line workers.

Bombardier, which has had a presence in Tucson for 35 years, currently employs 630 people at the Tucson facility, making it the city's 68th largest private employer.

According to a Bombardier press release, the expansion will account for \$56.7 million in economic impact for the region.

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Stock Symbol Guide

JET JOBS AT BOMBARDIER

Bombardier announces jobs expansion at Tucson plant

Tweet

Posted: Friday, September 30, 2011 12:00 pm | Updated: 2:28 pm, Thu Sep 29, 2011.

Posted on September 30, 2011



by Patrick McNamara

It looks like Tucson "won one" on the economic development front this week, with the word that Bombardier has boosted the workforce by 116 to about 630 at its aircraft service plant near Tucson International Airport. And, provided demand continues, the company says it intends to continue adding to the local workforce.

The Montreal-based jet maker made the announcement Tuesday (Sept. 27) with Gov. Jan Brewer at an Arizona Commerce Authority meeting in Phoenix.

Christina Peikert, director of marketing and communications for Bombardier, said the jobs that have been added include airplane mechanics, production line and other highly-skilled technical positions.

The Bombardier Tucson Service Center, 1255 E. Aero Park Blvd., primarily does maintenance work on Learjet, Challenger and Global private business jets as well as the company's line of airline regional jets (CRJ) and turboprops (Q400).

According to Tucson Regional Economic Opportunities (TREO), the economic impact of Bombardier's Tucson operation is estimated at \$56.7 million.

While Tucson has benefited from the expansion, Bombardier announced earlier this month that it would cut production of some of its aircraft at plants in Canada and Northern Ireland. About 350 workers were affected by those cuts but the company said all employees were retained and transferred to other facilities. Peikert said none of those employees were brought to Tucson.

Originally opened in 1976 as an aircraft production and services facility for Learjet, Bombardier acquired Learjet and the Tucson facility in 1990. At one point, in 2002, Bombardier had 2,000 employees in Tucson and its work included finishing interiors of private jets. The company moved its interior finishing work elsewhere and down-sized the Tucson operation to about 600 as of 2006 but reiterated its intention to remain signing a 22-year lease for its 847,800 square-foot plant until 2028.

The Tucson center is one of six Bombardier U.S. maintenance centers for its business jet customers and one of three for commercial jets.

Contact reporter Patrick McNamara at pmcnamara@azbiz.com or (520) 295-4259.

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SOURCE: APAC Customer Services



APAC Customer Services, Inc.

December 13, 2011 09:23 ET

APAC Customer Services Creating Pharmacy Jobs in Tucson Contact Center

Open House to Be Held Wednesday, December 14, 2011 With Mayor Rothschild Attending

TUCSON, AZ--(Marketwire - Dec 13, 2011) - APAC Customer Services, Inc., a leader in global outsourced services and solutions, announced today that it is hiring Pharmacists, Pharmacy Technicians and Order Entry Clerks at its Tucson West facility. The Company has 160 immediate openings for these specialty positions, with more openings in these fields expected in 2012.

A principal Pharmacy company has contracted with APAC to support its prescription order processing operations. Normal operations will be Monday - Friday, 7am to 4pm MST. This program allows for a positive work/life balance opportunity within the Pharmaceutical Industry. As business and client requirements change, opportunities for increased hours and overtime may be available.

APAC will be holding an Open House at their Tucson West, Pharmacy Services facility this coming Wednesday, December 14, 2011 from 5:00PM to 6:30 PM. The address is 2929 E. Corona Road. Mayor Jonathan Rothschild is expected to attend the event at 5:30 PM.

APAC Customer Services and its client view Tucson as the ideal location for this business enterprise due to the city's favorable business climate, the high caliber of job candidates and the firm commitment from Mayor Rothschild to focus on job growth as he starts his term in office.

Experienced Pharmacy professionals interested in applying for open positions at the facility are encouraged to attend to learn more about the positions and how to apply for them. In addition, city leaders and members of the University of Arizona Pharmacy faculty have been invited so that the details of this new partnership can be shared with them, as stakeholders in its success. The event will include a tour of the facility. The Open House will also give current employees the opportunity to meet and greet their new pharmacy colleagues and APAC leadership.

The media is invited to attend.

About APAC Customer Services, Inc.

APAC Customer Services, Inc. is a leading provider of quality customer care services and solutions for market leaders in healthcare, business services, communications, media & publishing, travel & entertainment and financial services industries. APAC partners with its clients to deliver custom solutions that enhance bottom line performance. For more information, call 1-800-OUTSOURCE. APAC's comprehensive web site is at <http://www.apaccustomerservices.com>.

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Marketing Director
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Company to hire 100-plus for pharmacy dept. in Tucson

By Dale Quinn, Arizona Daily Star | Posted: Tuesday, December 13, 2011 1:02 pm

APAC Customer Services Inc., which is launching a pharmacy department in Tucson, has plans to hire more than 100 workers in coming months.

The company is adding 125 pharmacist and pharmacy technician positions at its location at 2929 E. Corona Road, near Tucson International Airport, said Shayne Farrell, APAC's vice president of operations.

The pharmacists will not handle or distribute pharmaceuticals on site, Farrell said. A major pharmacy company contracted with APAC to handle its prescription order processing and the workers will handle those orders, Farrell said.

Farrell said he could not identify the pharmacy company.

APAC, which runs call centers, has operations in states across the country and Tucson was one of several locations considered for expansion. The company decided on Tucson because of its access to a pool of qualified workers, Farrell said.

Read more of this story in tomorrow's Arizona Daily Star.

Contact reporter Dale Quinn at dquinn@azstarnet.com or 573-4197

ATTACHMENT 3

14-Jun-12

Comparative Analysis of Costs and Benefits between Proposed Rosemont Copper Mine and other New Companies & Expansions

Criteria for selecting companies:

Announcement of new facility or expansion since 2010 within Pima County

Average salary & benefits of new jobs would be comparable or higher to Rosemont's \$70,800.

Number of new jobs proposed total 100 or more

Companies sorted from highest to lowest based on the total annual economic benefit of the new jobs

Overview of Selected Companies					
Company	Expansion or New	Date of announcement	Industry Type	# New Direct Jobs	Average salary & benefits of new jobs
Rosemont Copper/Augusta	New	2006	Mining	350-480 ¹	\$70,800 ¹²
Ventana Medical Systems/R	Expansion	2010	Bioscience	500 ²	\$71,500 ³
Oracle Ridge Mining, LLC	New/Re-opening	2010	Mining	240 ¹¹	\$78,000 ¹¹
Sargent Controls	Expansion	2010	Aerospace	169 ²	\$86,366 ⁴
DMAFB Drone Squadron	Expansion	2011	Military	280 ⁶	\$83,814 ⁴
Bombardier Aerospace	Expansion	2011	Aerospace	120 ⁷	\$60,796 ⁴
APAC	Expansion	2011	Pharmaceutical	160 ⁵	\$44,597 ⁴

Economic Benefits					
Company	# New Direct Jobs	# New Direct, Indirect & Induced Jobs	Average salary & benefits of new jobs	Total New Jobs Capital Investment	Total New Jobs Economic Benefit in Pima Co. per year (direct, indirect & induced output)
Rosemont Copper/Augusta	350-480 ¹	900-1,600 ¹	\$70,800 ¹²	\$897,171,772 ¹	\$392,400,000 ¹
Ventana Medical Systems/R	500 ²	1,263 ²	\$71,500 ³	\$184,000,000 ²	\$223,326,356 ²
Oracle Ridge Mining, LLC	240 ¹¹	636 ⁴	\$78,000 ¹¹	\$100,000,000 ¹¹	\$201,731,693 ⁴
Sargent Controls	169 ²	420 ⁴	\$86,366 ⁴	\$15,000,000 ²	\$87,654,253 ⁴
DMAFB Drone Squadron	280 ⁶	461 ⁴	\$83,814 ⁴	unknown	\$56,349,815 ⁴
Bombardier Aerospace	120 ⁷	254 ⁴	\$60,796 ⁴	Using existing space ⁷	\$46,008,633 ⁴
APAC	160 ⁵	267 ⁴	\$44,597 ⁴	Using existing space ⁵	\$23,924,091 ⁴

Costs or Adverse Impacts										
Company	Land & Related Resources						Water	Air	Transportation	Dark Skies
	Total Acres of New Land Disturbance	Adverse Impacts to Conservation Lands System (acres)	Adverse Impacts to Threatened or Endangered Species	Adverse Impacts to Cultural Resources (# of sites)	Area No Longer Available for Recreation (acres)	Use of Public Land without Compensation				
Rosemont Copper/Augusta	4,288 ¹³	4288 ¹⁷	Yes ¹⁸	96 ²¹	6,844 ²⁴	Yes ²⁷	High ³²	Yes ³⁸	medium-high ⁴⁰	High ⁴²
Ventana Medical Systems/R	24 ⁹	24 ¹⁷	No ¹⁹	1 ²²	0 ²⁵	No ²⁸	Low ³³	No ³⁹	medium ⁴⁰	Low ⁴³
Oracle Ridge Mining, LLC	77 ¹⁴	77 ¹⁷	Potential ²⁰	5 ²³	<1 ²⁶	No ²⁹	Medium ³⁴	No ³⁹	low ⁴¹	Low ⁴⁴
Sargent Controls	0 ¹⁵	0	No	0	0 ²⁵	No ²⁸	Low ³⁵	No ³⁹	medium ⁴⁰	Low ⁴³
DMAFB Drone Squadron	0 ¹⁶	0	No	0	0 ²⁵	N/A ³⁰	Low ³⁶	No ³⁹	low ⁴⁰	Low ⁴³
Bombardier Aerospace	0 ¹⁵	0	No	0	0 ²⁵	No ³¹	Low ³⁷	No ³⁹	low ⁴⁰	Low ⁴³
APAC	0 ¹⁵	0	No	0	0 ²⁵	No ²⁸	Low ³⁵	No ³⁹	low-medium ⁴⁰	Low ⁴³

Data sources

¹Applied Economics, Economic Impacts of The Rosemont Copper Project on Pima County, Arizona, June 2011, for TREO

²Data provided by TREO

³Exhibit B of Pima County Contract 11-71-V-143401. Note that this figure does not include benefits. If benefits were included, the figure would be higher.

⁴IMPLAN Version 3 with data for Pima County as a whole. Model ran by Pima County.

⁵www.marketwire.com December 13, 2011 article "APAC Customer Services Creating Pharmacy Jobs in Tucson Contact Center"

⁶www.azstarnet.com November 3, 2011 article "Air Force eyes D-M for drone squadron"

⁷www.insidetucsonbusiness.com September 30, 2011 article "Bombardier announces jobs expansion at Tucson plant"

⁸Based on data from U.S. Forest Service for the Rosemont's proposed Mine Plan of Operations

⁹Based on description of project and orthophotography on Pima County MapGuide

¹⁰Tucson Airport Authority leases City of Tucson land for \$1, but Bombardier pays TAA market rate rent for use of land.

¹¹Data provided by Oracle Ridge Mining LLC Representative via emails dated May 15, 2012 & June 10, 2012.

¹²Coronado National Forest DEIS for Rosemont Copper Mine, p.741, September 2011

¹³Coronado Nation Forest DEIS for Rosemont Copper Mine, p.96, September 2011

¹⁴Mapping data provided by Representative for Oracle Ridge Mining LLC

¹⁵Staff's review of online announcements and comparison to ortho photos on Pima County MapGuide

¹⁶Email from DMAFB employee dated May 1, 2012

¹⁷Staff overlaid boundary of area of new disturbance over County's Conservation Lands System

¹⁸Staff overlaid boundary of area of new disturbance over County's Priority Conservation Areas (PCA). Rosemont fell within multiple PCAs. Coronado National Forest DEIS for Rosemont Copper Mine, September 2011, stated that direct impacts are expected for 3 Threatened & Endangered species.

¹⁹Staff overlaid boundary of area of new disturbance over County's PCAs and found the the project did not contain any PCAs.

²⁰Staff overlaid boundary of area of new disturbance over County's PCAs & found that project contained one PCA. Surveys for four Threatened & Endangered Species have been conducted for Oracle Ridge Mine. Only one was documented south of the project area. No determination has been made as to whether the project would impact this species.

²¹Coronado National Forest DEIS for Rosemont Copper, p.667, Preferred Alternative Barrel, September 2011.

²²Cultural Resources database AzSite

²³Survey by Antigua Archeology conducted for Oracle Ridge Mine, May 29, 2012

²⁴Acres cited in the Coronado National Forest DEIS as the area that would be enclosed by perimeter fence for 25 years.

²⁵Staff was not aware of any recreational impacts from the expansion of these facilities.

²⁶No perimeter fencing of entire project. Majority of project is on private land. 0.26 acre helipad is proposed for Forest Service land.

²⁷Majority of Rosemont project would be on public land managed by the Forest Service. Forest Service does not require royalties or payments for use of these lands. To staff's knowledge, Rosemont has not volunteered to fully compensate for these uses.

²⁸Facilities are on private property.

²⁹Oracle Ridge Mine impacts would mostly be to private land. There would be use of Forest and County land. Representative for the Company has stated that they will fully compensate the Forest and County for use of land. For County, this could include a land exchange.

³⁰Federal project on federal land.

³¹Located on City of Tucson land, pays market rent to TAA, but TAA pays \$1.0 to City for lease of land.

³²Estimated water use is 5,400 AF a year. Source is groundwater. Proposing to offset with CAP water but lacks an assured allocation.

³³Assumed water use is less than 100AF a year. Source of water=Town of Oro Valley, who is a municipal water provider that uses CAP water or reclaimed water.

³⁴Estimated water use is 150 AF a year. Source of water is groundwater and reclaimed water from tailings.

³⁵Estimated water use is 6 AF a year. Source of water is Tucson Water, who is a municipal water provider that uses CAP and reclaimed water.

³⁶Estimated water for new facility is less than 100 AF a year. Source of water is ground water. Some facilities at the base are served with reclaimed water.

³⁷Estimated water use is 13 AF a year. Source is Tucson Water, who is a municipal water provider that uses CAP and reclaimed water.

³⁸Coronado National Forest DEIS for Rosemont Copper Mine, September 2011.

³⁹Ursula Kramer, PDEQ Director via phone, March 2012. Draft air quality permit for Oracle Ridge Mine is currently out for public comment.

⁴⁰Jonathan Crowe, PCDOT, email dated February 3, 2012

⁴¹Jonathan Crowe, PCDOT, email dated May 17, 2012

⁴²Location would be in lighting area E1a of Tucson/Pima Outdoor Lighting Code and most operations are conducted outdoors 24 hours a day

⁴³Location would be in a less protected lighting area per the Tucson/Pima Outdoor Lighting Code and most operations would occur indoors and utilize exterior lighting primarily for parking.

⁴⁴Yves Khawam, County Chief Building Official review of email provided by Oracle Ridge Mining LLC representative dated May 29, 2012.

Definitions

Expansion or New: The additional jobs will result from a new company locating in Pima County or from an expansion of an existing company. Oracle Ridge Mining LLC is a new company re-opening an existing mine.

Date of Announcement: Date company announced plans for expansion or new opening. For Rosemont, the date the company submitted MPO to US Forest Service.

Industry type: Type of industry

Number of New Direct Jobs: Number of new jobs positions that the company would directly create.

New Direct, Indirect & Induced Jobs: Indirect jobs are contactors, subcontractors or suppliers to direct employers. Induced jobs are the jobs created as a result of the additional spending of payroll income by those with the direct, indirect and induced jobs, such as jobs associated with restaurants, medical offices, daycare, housing, transportation, entertainment, etc.

Average salary & benefits of new jobs: Note that Ventana Medical Systems is the only figure that does not include benefits.

Total New Jobs Capital Investment: For companies constructing new facilities associated with the new jobs, the cost of the capital investment.

Total New Jobs Economic Benefit in Pima County per year: This is the total annual economic value of new, indirect and induced jobs generated in IMPLAN, excluding construction.

Total New Acres of Disturbance: For the companies constructing new or expanded facilities, will they disturb previously undisturbed land and if so how many acres?

Adverse Impacts to Conservation Lands System: Number of acres of the County's Conservation Lands System that would be disturbed.

Adverse Impacts to Threatened and Endangered Species: Would the new or expanded facilities disturb Priority Conservation Areas for Threatened or Endangered Species, and if so, have there been findings as to whether there will be impacts to these species?

Adverse Impacts to Cultural Resources: The number of known historic or archaeological sites that would be disturbed by the new or expanded facility.

Area No Longer Available for Recreation (acres): This was an measurement used in the Rosemont DEIS.

Use of Public Land Without Compensation: Will the new or expanded business use public land without providing compensation?

Adverse Impacts to Ground Water Supplies: High - will use more than 2,000 acre-feet of water per year and will pump groundwater. Medium - will use between 100 and 2,000 acre feet of water per year and will pump ground water, but will supplement with reclaimed or CAP water. Low - will use less than 100 acre feet of water per year and will get its water from a municipal water provider that uses CAP water or reclaimed water.

Adverse Impacts to Air Quality: Would the new or expanded facilities result in violation of the ambient air standard in the area?

Adverse Transportation Impacts: In relation to eachother, these companies were compared regarding expected traffic volumes, traffic safety, and wear and tear on the roads.

Adverse Impacts to Dark Skies: Low, medium or high impact or expanded facilities based on location, spectra and lumen quantity.

ATTACHMENT 4

		PIMA COUNTY 2010 - Countywide IMPLAN Model Results											
										Average Per Employee			
Year 2010	NAICS Code	Impact Type	Employment	Employee Compensation (\$2010)	Labor Income (\$2010)	Value Added (\$2010)	Output (\$2010)	Employee Compensation (\$2010)	Labor Income (\$2010)	Value Added (\$2010)	Output (\$2010)		
Rosemont 480 Employment Sector 23 Copper Nickel Zinc Mining	21223	Direct Effect	480	\$32,604,637	\$40,274,342	\$214,671,372	\$311,842,866	\$67,926	\$83,905	\$447,232	\$649,673		
		Indirect Effect	337.2	\$14,812,549	\$18,393,671	\$26,301,871	\$43,989,960	\$43,928	\$54,548	\$78,001	\$130,457		
		Induced Effect	455	\$13,641,329	\$15,340,241	\$29,157,299	\$47,630,559	\$29,981	\$33,715	\$64,082	\$104,683		
		Total Effect	1,272.20	\$61,058,515	\$74,008,254	\$270,130,542	\$403,463,386	\$47,994	\$58,173	\$212,333	\$317,138		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
		Indirect Effect	0.7025	0.4543	0.4567	0.1225	0.1411						
		Induced Effect	0.9479	0.4184	0.3809	0.1358	0.1527						
		Total Effect	2.6504	1.8727	1.8376	1.2583	1.2938						
Ventana Medical Systems 500 Employment Sector 305 Surgical & Medical Instrument Mfg	339112	Direct Effect	500	\$23,750,373	\$23,819,400	\$46,407,340	\$116,250,394	\$47,501	\$47,639	\$92,815	\$232,501		
		Indirect Effect	220	\$7,074,369	\$8,328,723	\$15,305,290	\$25,788,994	\$32,156	\$37,858	\$69,570	\$117,223		
		Induced Effect	248.3	\$7,451,478	\$8,379,882	\$15,922,093	\$26,025,110	\$30,010	\$33,749	\$64,124	\$104,813		
		Total Effect	968.3	\$38,276,219	\$40,528,006	\$77,634,723	\$168,064,499	\$39,529	\$41,855	\$80,176	\$173,567		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
		Indirect Effect	0.4400	0.2979	0.3497	0.3298	0.2218						
		Induced Effect	0.4966	0.3137	0.3518	0.3431	0.2239						
		Total Effect	1.9366	1.6116	1.7015	1.6729	1.4457						
Ventana Medical Systems 500 Employment Sector 306 Surgical Appliance & Supplies Mfg	339113	Direct Effect	500	\$26,142,430	\$26,556,647	\$76,175,904	\$133,678,870	\$52,285	\$53,113	\$152,352	\$267,358		
		Indirect Effect	170.9	\$5,574,610	\$6,602,855	\$11,797,267	\$20,273,285	\$32,619	\$38,636	\$69,030	\$118,627		
		Induced Effect	256.1	\$7,686,300	\$8,643,955	\$16,423,932	\$26,845,136	\$30,013	\$33,752	\$64,131	\$104,823		
		Total Effect	927	\$39,403,340	\$41,803,458	\$104,397,103	\$180,797,290	\$42,506	\$45,095	\$112,618	\$195,035		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.3418	0.2132	0.2486	0.1549	0.1517						
		Induced Effect	0.5122	0.2940	0.3255	0.2156	0.2008						
		Total Effect	1.8540	1.5073	1.5741	1.3705	1.3525						
Ventana Medical Systems 500 Employment Sector 134 In-Vitro Diagnostic Substance Mfg	325413	Direct Effect	500	\$92,107,921	\$146,442,538	\$167,644,932	\$327,305,878	\$184,216	\$292,885	\$335,290	\$654,612		
		Indirect Effect	614.4	\$24,443,601	\$29,798,622	\$47,446,631	\$77,889,583	\$39,785	\$48,500	\$77,224	\$126,773		
		Induced Effect	1372.7	\$41,104,851	\$46,222,044	\$87,884,526	\$143,484,359	\$29,945	\$33,672	\$64,023	\$104,527		
		Total Effect	2487.2	\$157,656,373	\$222,463,204	\$302,976,088	\$548,679,821	\$63,387	\$89,443	\$121,814	\$220,601		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	1.2288	0.2654	0.2035	0.2830	0.2380						
		Induced Effect	2.7454	0.4463	0.3156	0.5242	0.4384						
		Total Effect	4.9744	1.7116	1.5191	1.8072	1.6764						
Ventana Medical Systems 500 Employment Sector 254 Analytical Laboratory Instrument Mfg	334516	Direct Effect	500	\$32,816,645	\$32,759,128	\$43,416,333	\$179,142,935	\$65,633	\$65,518	\$86,833	\$358,286		
		Indirect Effect	350.8	\$13,228,889	\$15,980,214	\$25,985,544	\$44,023,639	\$37,711	\$45,554	\$74,075	\$125,495		
		Induced Effect	376.5	\$11,300,447	\$12,708,352	\$24,147,148	\$39,467,026	\$30,014	\$33,754	\$64,136	\$104,826		
		Total Effect	1227.3	\$57,345,981	\$61,447,694	\$93,549,025	\$262,633,600	\$46,725	\$50,067	\$76,223	\$213,993		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.7016	0.4031	0.4878	0.5985	0.2457						
		Induced Effect	0.7530	0.3444	0.3879	0.5562	0.2203						
		Total Effect	2.4546	1.7475	1.8757	2.1547	1.4661						
Ventana Medical systems 500 Employment Average Sectors 306 & 254		Direct Effect	500	\$29,479,538	\$29,657,888	\$59,796,119	\$156,410,903	\$58,959	\$59,316	\$119,592	\$312,822		
		Indirect Effect	260.85	\$9,401,750	\$11,291,535	\$18,891,406	\$32,148,462	\$35,165	\$42,095	\$71,553	\$122,061		
		Induced Effect	316.3	\$9,493,374	\$10,676,154	\$20,285,540	\$33,156,081	\$30,014	\$33,753	\$64,133	\$104,824		
		Total Effect	1077.15	\$48,374,661	\$51,625,576	\$98,973,064	\$221,715,445	\$44,616	\$47,581	\$94,421	\$204,514		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.5217	0.3082	0.3682	0.3767	0.1987						
		Induced Effect	0.6326	0.3192	0.3567	0.3859	0.2106						
		Total Effect	2.1543	1.6274	1.7249	1.7626	1.4093						
Sargent Controls 169 Employment Sector 249 Search, Detection & Navigation Instrument	334511	Direct Effect	169	\$15,732,532	\$15,715,318	\$22,367,366	\$65,350,934	\$93,092	\$92,990	\$132,351	\$386,692		
		Indirect Effect	141	\$5,509,092	\$6,706,436	\$9,580,365	\$16,126,897	\$39,072	\$47,563	\$67,946	\$114,375		
		Induced Effect	173.2	\$5,198,290	\$5,845,941	\$11,107,808	\$18,155,215	\$30,013	\$33,753	\$64,133	\$104,822		
		Total Effect	483.2	\$26,439,913	\$28,267,696	\$43,055,540	\$99,633,046	\$54,718	\$58,501	\$89,105	\$206,194		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.8343	0.3502	0.4267	0.4283	0.2468						
		Induced Effect	1.0249	0.3304	0.3720	0.4966	0.2778						
		Total Effect	2.8592	1.6806	1.7987	1.9249	1.5246						
Sargent Controls 169 Employment Sector 198 Valve & Fittings Other Than Plumbing	332911 - 2	Direct Effect	169	\$13,459,146	\$13,486,117	\$27,657,494	\$55,188,509	\$79,640	\$79,800	\$163,654	\$326,559		
		Indirect Effect	64.5	\$2,138,239	\$2,483,747	\$4,336,558	\$7,552,595	\$33,151	\$38,508	\$67,233	\$117,094		
		Induced Effect	123.4	\$3,703,228	\$4,164,653	\$7,912,662	\$12,934,355	\$30,010	\$33,749	\$64,122	\$104,816		
		Total Effect	356.8	\$19,300,613	\$20,134,517	\$39,906,714	\$75,675,459	\$54,094	\$56,431	\$111,846	\$212,095		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.3817	0.1589	0.1842	0.1568	0.1369						
		Induced Effect	1.9132	1.7319	1.6768	1.8246	1.7126						
		Total Effect	2.1112	1.4340	1.4930	1.4429	1.3712						
Sargent Controls 169 Employment Average Sectors 249 & 198		Direct Effect	169	\$14,595,839	\$14,600,718	\$25,012,430	\$60,269,722	\$86,366	\$86,395	\$148,003	\$356,626		
		Indirect Effect	102.8	\$3,823,665	\$4,595,092	\$6,958,462	\$11,839,746	\$37,213	\$44,721	\$67,722	\$115,229		
		Induced Effect	148.3	\$4,450,759	\$5,005,297	\$9,510,235	\$15,544,785	\$30,012	\$33,751	\$64,128	\$104,820		
		Total Effect	420.0	\$22,870,263	\$24,201,107	\$41,481,127	\$87,654,253	\$54,453	\$57,622	\$98,765	\$208,701		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.6080	0.2545	0.3055	0.2926	0.1918						
		Induced Effect	1.4690	1.0312	1.0244	1.1606	0.9952						
		Total Effect	2.4852	1.5573	1.6459	1.6839	1.4479						
APAC Pharmacy Services 160 Employment Sector 386 Business Support Services	5614	Direct Effect	160	\$3,994,302	\$3,994,302	\$3,943,419	\$7,139,500	\$24,964	\$24,964	\$24,646	\$44,622		
		Indirect Effect	26.8	\$959,420	\$959,420	\$1,478,674	\$2,336,401	\$35,799	\$35,799	\$55,174	\$87,179		
		Induced Effect	38.3	\$1,292,627	\$1,292,627	\$2,456,335	\$4,014,147	\$33,750	\$33,750	\$64,134	\$104,808		
		Total Effect	225.1	\$6,246,349	\$6,246,349	\$7,878,429	\$13,490,048	\$27,749	\$27,749	\$35,000	\$59,929		
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000						
		Indirect Effect	0.1675	0.2402	0.2402	0.3750	0.3272						
		Induced Effect	0.2394	0.3236	0.3236	0.6229	0.5622						
		Total Effect	1.4069	1.5638	1.5638	1.9979	1.8895						

PIMA COUNTY 2010 - Countywide IMPLAN Model Results												
Year 2010	NAICS Code	Impact Type	Employment	Employee Compensation (\$2010)	Labor Income (\$2010)	Value Added (\$2010)	Output (\$2010)	Average Per Employee				
								Employee Compensation (\$2010)	Labor Income (\$2010)	Value Added (\$2010)	Output (\$2010)	
APAC Pharmacy Services 160 Employment Sector 394 Offices Physicians Dentists & Other Health Practitioners	6211 - 3	Direct Effect	160	\$10,276,884	\$12,106,708	\$12,509,310	\$19,103,773	\$64,231	\$75,667	\$78,183	\$119,399	
		Indirect Effect	43	\$1,273,014	\$1,505,910	\$2,712,885	\$4,211,229	\$29,605	\$35,021	\$63,090	\$97,936	
		Induced Effect	105.5	\$3,162,503	\$3,556,410	\$6,759,058	\$11,043,132	\$29,976	\$33,710	\$64,067	\$104,674	
		Total Effect	308.5	\$14,712,402	\$17,169,029	\$21,981,253	\$34,358,134	\$47,690	\$55,653	\$71,252	\$111,372	
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
		Indirect Effect	0.2688	0.1239	0.1244	0.2169	0.2204					
		Induced Effect	0.6594	0.3077	0.2938	0.5403	0.5781					
		Total Effect	1.9281	1.4316	1.4181	1.7572	1.7985					
		Direct Effect	160	\$7,135,593	\$8,050,505	\$8,226,365	\$13,121,637	\$44,597	\$50,316	\$51,415	\$82,010	
		Indirect Effect	34.9	\$1,116,217	\$1,232,665	\$2,095,780	\$3,273,815	\$32,702	\$35,410	\$59,132	\$92,557	
Induced Effect	71.9	\$2,227,565	\$2,424,519	\$4,607,697	\$7,528,640	\$31,863	\$33,730	\$64,100	\$104,741			
Total Effect	266.8	\$10,479,376	\$11,707,689	\$14,929,841	\$23,924,091	\$37,720	\$41,701	\$53,126	\$85,650			
Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000							
Indirect Effect	0.2181	0.1820	0.1823	0.2959	0.2738							
Induced Effect	0.4494	0.3157	0.3087	0.5816	0.5702							
Total Effect	1.6675	1.4977	1.4910	1.8775	1.8440							
Bombardier 120 Employment Sector 284 Aircraft Manufacturing	336411	Direct Effect	120	\$13,493,334	\$13,509,300	\$20,025,743	\$73,552,212	\$112,444	\$112,578	\$166,881	\$612,935	
		Indirect Effect	36.9	\$1,467,770	\$1,737,749	\$2,489,290	\$4,403,094	\$39,777	\$47,093	\$67,460	\$119,325	
		Induced Effect	117.7	\$3,532,402	\$3,972,543	\$7,547,584	\$12,337,817	\$30,012	\$33,751	\$64,126	\$104,824	
		Total Effect	274.5	\$18,493,506	\$19,219,591	\$30,062,618	\$90,293,124	\$67,372	\$70,017	\$109,518	\$328,937	
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000					
		Indirect Effect	0.3075	0.1088	0.1286	0.1243	0.0599					
		Induced Effect	0.9808	0.2618	0.2941	0.3769	0.1677					
		Total Effect	2.2875	1.3706	1.4227	1.5012	1.2276					
		Direct Effect	120	\$7,295,526	\$7,299,079	\$9,980,788	\$31,501,840	\$60,796	\$60,826	\$83,173	\$262,515	
		Indirect Effect	58.7	\$2,113,669	\$2,473,989	\$3,837,038	\$6,595,713	\$36,008	\$42,146	\$65,367	\$112,363	
Induced Effect	75.5	\$2,265,074	\$2,547,290	\$4,839,904	\$7,911,080	\$30,001	\$33,739	\$64,105	\$104,783			
Total Effect	254.2	\$11,674,270	\$12,320,358	\$18,657,729	\$46,008,633	\$45,926	\$48,467	\$73,398	\$180,994			
Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000							
Indirect Effect	0.4892	0.2897	0.3389	0.3844	0.2094							
Induced Effect	0.6292	0.3105	0.3490	0.4849	0.2511							
Total Effect	2.1183	1.6002	1.6879	1.8694	1.4605							
DMAFB MQ-1/9 Squadron 280 Employment Sector 440 Employment & Payroll Only Federal Military	N/A	Direct Effect	280	\$23,467,796	\$23,467,796	\$37,366,738	\$37,366,739	\$83,814	\$83,814	\$133,453	\$133,453	
		Indirect Effect	0	\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
		Induced Effect	181	\$5,434,795	\$6,112,012	\$11,611,931	\$18,983,076	\$30,026	\$33,768	\$64,154	\$104,879	
		Total Effect	461	\$28,902,591	\$29,579,808	\$48,978,669	\$56,349,815	\$62,695	\$64,164	\$106,244	\$122,234	
		Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000					
		Indirect Effect	0.0000	0.0000	0.0000	0.0000	0.0000					
		Induced Effect	0.6464	0.2316	0.2604	0.3108	0.5080					
		Total Effect	1.6464	1.2316	1.2604	1.3108	1.5080					
		Direct Effect	240	\$16,302,319	\$20,137,171	\$107,335,686	\$155,921,433	\$67,926	\$83,905	\$447,232	\$649,673	
		Indirect Effect	168.6	\$7,406,275	\$9,196,835	\$13,150,935	\$21,994,980	\$43,928	\$54,548	\$78,001	\$130,457	
Induced Effect	227.5	\$6,820,665	\$7,670,120	\$14,578,649	\$23,815,280	\$29,981	\$33,715	\$64,082	\$104,683			
Total Effect	636.1	\$30,529,259	\$37,004,127	\$135,065,271	\$201,731,693	\$47,994	\$58,173	\$212,333	\$317,138			
Direct Effect	1.0000	1.0000	1.0000	1.0000	1.0000							
Indirect Effect	0.7025	0.4543	0.4567	0.1225	0.1411							
Induced Effect	0.9479	0.4184	0.3809	0.1358	0.1527							
Total Effect	2.6504	1.8727	1.8376	1.2583	1.2938							